DOCUMENT RESUME

ED 107 025 EC 072 507

TITLE	Resource Services: Preliminary Curriculum Guide for Reading, Mathematics, Spelling, Writing, and Perceptual Development.
INSTITUTION	Klein Independent School District, Spring, Tex.
PUB DATE	74
NOTE	222p.; Majority of the pages are horizontal each requiring 2 microfiche frames
EDRS PRICE	MF-$0.76 HC-$10.78 PLUS POSTAGE
DESCRIPTORS	Class Activities; Curriculum Guides; Elementary Education; Exceptional Child Education; *Handwriting; Instructional Materials; *Learning Disabilities; *Mathematics; *Perceptual Development; *Reading; Skills; Spelling

ABSTRACT

The preliminary curriculum guide of the Klein Independent School District of Spring, Texas provides in tabular format, a listing of skills, texts, and resource materials and activities to be used with elementary grade learning disabled students to develop reading, mathematics, spelling, writing, and perceptual skills. Listed are goals for the student such as learning to pay attention to his work and establishing feelings of security, adequacy, and self-respect. Provided for reading are skills at 15 levels which are correlated with texts and resource materials, and teaching aids and activities. The mathematics curriculum is broken down into 17 levels with specific content correlated with texts and resource materials, teaching aids, and vocabulary terms. Guidelines are given for teaching manuscript and cursive writing in addition to the tabular outline of content, materials, and aids. Perceptual development is considered in terms of four areas: motor, visual, auditory, and sensory development. Examples of content skills include naming letters of the alphabet (for reading at the readiness level) and figure-foreground discrimination (for visual perceptual development). (DB)

ED107025

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

RESOURCE SERVICES

PRELIMINARY CURRICULUM GUIDE

Reading

Mathematics

Spelling

Writing

Perceptual Development

1974

KLEIN INDEPENDENT SCHOOL DISTRICT

EC072507

Printed by
Harris County Department of Education
Office of County School Superintendent

3

RESOURCE SERVICES
KLEIN I. S. D.

RESOURCE SERVICES

PRELIMINARY CURRICULUM GUIDE

for

READING, MATHEMATICS, SPELLING, WRITING, AND PERCEPTUAL DEVELOPMENT

The following activities are presented as a guide for the teacher of students who exhibit learning disabilities which require special teaching techniques in academic subjects. Acknowledgment is made to the Spring Branch ISD for its contributions.

KLEIN INDEPENDENT SCHOOL DISTRICT

7200 SPRING CYPRESS RD.

SPRING, TEXAS

1974

TABLE OF CONTENTS

INTRODUCTION i

READING 1-31

MATHEMATICS 32-81

WRITING AND SPELLING 82-103

PERCEPTUAL DEVELOPMENT 104-117

PROGRAM FOR THE LEARNING DISABLED

SCOPE

The curriculum for the learning disabled consists of structuring the environment, the learn
and the learning materials in such a way as to facilitate the functions of perception and c
the face of special learning difficulties. The purpose is to provide an instructional prog
setting that will meet the needs of individual children by assisting them to function educa
ally in such a way that whenever possible they may be prepared to return to the regular sch
ing to the regular class is determined by the child's readiness to adjust to and make progr

GOALS FOR THE STUDENT

- Attain the habit of following a schedule
- Learn to pay attention to his work; concentrate on his work in the presence of othe
- Accept a place in the classroom where he can work in isolation
- Learn to adjust to the people in his environment
- Develop skill in eye-hand-coordination activities
- Gain competency in distinguishing figure ground, part-whole, and spatial relationsh
- Gain skills in handling symbols through visual channels and auditory channels
- Develop a tolerance for the school environment and learn new ways to adjust to the ment
- Establish feelings of security, adequacy, and self respect
- Develop competence in basic academic subjects to the extent of his potential

AREAS FOR LEARNING EXPERIENCES

Learning disabled children explore the same areas in order to achieve their learning experi
children. However, in order for these areas to be meaningful to the handicapped children,
through which they receive and interpret environmental stimulation must be facilitated and
points of emphasis to give attention to in order to facilitate and strengthen perception.

- Develop substitute channels for perceptual intake
- Enhance teaching materials to make them more accessible to deficient perceptual me
- Structure the environment for elimination of distractions affecting adversely the of learning disabled children
- Develop an understanding and an accepting environment for learning disabled childre

PROGRAM FOR THE LEARNING DISABLED

SCOPE

e learning disabled consists of structuring the environment, the learning experiences
rials in such a way as to facilitate the functions of perception and concept formation in
earning difficulties. The purpose is to provide an instructional program in an educational
t the needs of individual children by assisting them to function educationally and emotion-
at whenever possible they may be prepared to return to the regular school program. Return-
ass is determined by the child's readiness to adjust to and make progress in a regular class.

GOALS FOR THE STUDENT

bit of following a schedule
attention to his work; concentrate on his work in the presence of others
e in the classroom where he can work in isolation
st to the people in his environment
in eye-hand-coordination activities
cy in distinguishing figure ground, part-whole, and spatial relationships
n handling symbols through visual channels and auditory channels
erance for the school environment and learn new ways to adjust to the people in his environ-

lings of security, adequacy, and self respect
tence in basic academic subjects to the extent of his potential

AREAS FOR LEARNING EXPERIENCES

ldren explore the same areas in order to achieve their learning experiences as do non-handicapped
n order for these areas to be meaningful to the handicapped children, the perceptual functions
ceive and interpret environmental stimulation must be facilitated and strengthened. There are
give attention to in order to facilitate and strengthen perception. These are the following:
itute channels for perceptual intake
ing materials to make them more accessible to deficient perceptual mechanisms
environment for elimination of distractions affecting adversely the learning experiences
g disabled children
derstanding and an accepting environment for learning disabled children

READING

8

PROGRESSIVE STEPS IN READING

Step I	Kindergarten
Step II	Grade 1
Step III	
Step IV	
Step V	Grade 2
Step VI	
Step VII	Grade 3
Step VIII	
Step IX	Grade 4
Step X	
Step XI	
Step XII	Grade 5
Step XIII	
Step XIV	
Step XV	Intermediate

Step I: PRE-READINESS - Kindergarten

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING AID
1. Vocabulary	1. Peabody Kit Library books Goldman-Lynch Sounds and Symbols Kit	1. Conversation Stories to b Talks about Talks about Field trips
2. Concept of size	2. Peabody Kit Goldman-Lynch	2. Games: "Tal Stories, suc Gruff" and
3. Concept of likenesses	3. Peabody Kit	3. Activity: H tures from m are alike: b Go for walks such as tree
4. Concept of differences	4. Peabody Kit	4. Pictures; ca
5. Listening experiences	5. Library books Records of stories Taped stories Eyegate (records and filmstrips) Goldman-Lynch	5. Reading stor Listen to an them. Ident Clap rhythms Close eyes a the ball bou claps. Listen and D

Kindergarten

TEXTS & RESOURCE MATERIALS	TEACHING AIDS
1. Peabody Kit Library books Goldman-Lynch Sounds and Symbols Kit	1. Conversation with child Stories to be read Talks about home and family Talks about animals and animal homes Field trips around school, to the zoo, etc
2. Peabody Kit Goldman-Lynch	2. Games: "Tall and Small" Stories, such as "The Three Billy Goats Gruff" and "The Three Bears"
3. Peabody Kit	3. Activity: Have children cut out pictures from magazines; discuss how they are alike: both dogs, both balls, etc. Go for walks; pick out like things, such as trees, etc.
4. Peabody Kit	4. Pictures; catalogs; magazines; walks
5. Library books Records of stories Taped stories Eyegate (records and filmstrips) Goldman-Lynch	5. Reading stories; listening to records: Listen to and identify sounds around them. Identify hi and low pitches. Clap rhythms pattern. Close eyes and tell how many times the ball bounced or the number of claps. Listen and Do tapes.

READINESS Kindergarten - Grade 1[1]

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Concept that reading is written talk	1. We Read More Pictures, Scott, Foresman ABC and Me, Lyons Carahan Stepping Stones, Economy	1. Child's na books, e Stories wr Experience Stories an Flannel b Picture nc Matching p Matching p Matching w
2. Auditory discrimination	2. DLM - Auditory Discrimination Getting Reading to Read, Houghton Mifflin Eyegate records and filmstrips Goldman Lynch Sound and Symbol Kit Desi	2. Recordings Pictures c charts t Nursery ji
3. Naming letter of the alphabet	3. "The Alphabet Song" Reading as Easy as ABC, Dodd & Hardulak Alphy's Show & Tell, James I. Brown My Alphabet Book, Merrill	3. Alphabet c Use of opa Cards arra by pupil
4. Words skills: Initial consonants-- Ch-, Sh-, Th-, Wh- Hearing rhyming words	4. Getting Ready to Read, Houghton Mifflin Phonics We Use Book A, Lyons & Carnaham Ideal consonant charts Fun at the Pond, Harper & Row Listen & Do, Houghton Mifflin	4. Preprimer Word Build Open Highw Scott Fo Continenta

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
is	1. We Read More Pictures, Scott, Foresman ABC and Me, Lyons Carahan Stepping Stones, Economy	1. Child's name printed on locker, workbooks, etc. Stories written on blackboards Experience charts Stories and poetry to be read Flannel board Picture notebook Matching picture to picture Matching picture to word Matching word to word
on	2. DLM - Auditory Discrimination Getting Reading to Read, Houghton Mifflin Eyegate records and filmstrips Goldman Lynch Sound and Symbol Kit Desi	2. Recordings, worksheets Pictures of beginning sounds and charts to be collected Nursery jingles to be read
	3. "The Alphabet Song" Reading as Easy as ABC, Dodd & Hardulak Alphy's Show & Tell, James I. Brown My Alphabet Book, Merrill	3. Alphabet cards Use of opague projector Cards arranged in alphabetical order by pupils
s	4. Getting Ready to Read, Houghton Mifflin Phonics We Use Book A, Lyons & Carnaham Ideal consonant charts Fun at the Pond, Harper & Row Listen & Do, Houghton Mifflin	4. Preprimer seatwork, McGraw-Hill Word Building Lotto, Milton Bradley Open Highways Program Worksheets, Scott Foresman Continental Press materials

STEP II: PRE-PRIMER - First Grade Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
5. Word skills: Sounds of th, pl, nd Short a Long and short i Initial consonant substitution Z sound of c Vowel y Schwa sound of a Phonograms: ach, all, an, and, ay, e (me), ick, ill, in, ind (find), ip, ish, it, o (no), ack, ad, og, ot, am, ed, eep, eet, en, et, id, ilk, inch, ig, oad, ork, ap, ash, atch, eed, eek, enny, erry, itch, ittle, ob, ond, oo, ool, oop, oot, op, ow (show), own, (down), ox, y	5. Phonics We Use Book B, Lyons & Carnahan Reading as Easy As ABC, Dodd and Hardulak Pre-Primer Seatwork, McGraw-Hill Reading With Phonics, Lippincott Listen and Do, Houghton Mifflin Peppermint Fence, Heath Company Enchanted Gates, MacMillan Vowels and Variants, Ginn Word Enrichment Program Goldman-Lynch Sounds and Symbols Kit	5. Workbook a Phonetic Q Vowel Lott Continenta Dolch phon Milton Bra poster Language M Controlled Consonant blends, consonan Sea of Vow Dial a Vow Say the So Phonic Rum

rst Grade Continued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
nd all, an, ick, ill, ip, ish, ad, og, eet, en, h, ig, oad, ch, eed, itch, oo, ool, (show), y	5. Phonics We Use Book B, Lyons & Carnahan Reading as Easy As ABC, Dodd and Hardulak Pre-Primer Seatwork, McGraw-Hill Reading With Phonics, Lippincott Listen and Do, Houghton Mifflin Peppermint Fence, Heath Company Enchanted Gates, MacMillan Vowels and Variants, Ginn Word Enrichment Program Goldman-Lynch Sounds and Symbols Kit	5. Workbook and reading sheets Phonetic Quizmo, Milton Bradley Vowel Lotto Continental Press ditto sheets Dolch phonic cards Milton Bradley vowel and consonant poster cards Language Master Controlled reader Consonant game played as Bingo (with blends, initial consonants, ending consonants, etc.) Sea of Vowels, Ideal Dial a Vowel, St. Regis Say the Sound, Kentworthy Phonic Rummy, Kentworthy

STEP III: (FIRST READER) First Grade

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Using table of contents	1. Jack and Janet, Houghton Mifflin Rolling Along, Scott, Foresman Six in a Mix, Harper & Row Green Feet, Blue Dilly Dilly, Economy Magic Rings & Funny Things Red Rock Ranch, Lyons & Carnahan Audio Reading L1, Continuous Progress Lab	1. Opague pr Practice and page Film and
2. Recalling sequence of story events	2. Jack and Janet Peabody Kit Goldman Lynch Same readers as 1 Merrill Linguistic Readers 1 - 2 - 3.	2. Sequence Use of art Tape recor Listening records Jack and
3. Listening to remember details, main ideas, drawing conclusions, interpreting pronouns and adverbs	3. Jack and Janet Peabody Kit Listening Games for Primary Grades Listen and Do, Houghton Mifflin Same readers as 1 Goldman Lynch Audio Reading L1	3. Writing st Use of art Records: listenin Listening taped
4. Word skills: More initial consonant substitution Structural elements: ed, ing, s, 's Compound words Short o, u Long e ng h sound with wh Blends: bl, cr, fl, fr, sk, st, str, tr, ld, mp, nk, nt ow sound of a Phonograms: ade, ake, ame, ane, ank, ard, ark, ast, ave, aw, ear (hear), eat, ee, end, ent, ew, ied,	4. Jack and Janet Phonics We Use Book B & C, Lyons & Carnahan Sounds to Words, Silver-Burdett Lippincott Phonics SRA Basic Reading Series, Level C Sounds and Symbols, Ginn and Co. Ideal consonant cards SCC, Open Highways, Scott Foresman Dolch Word List Same readers as 1 Audio Reading L1	4. Reading s Flash car Tape reco Typewrite We Can Re "Tachisto words u "Jack-in- pulling box whi "Jack-i "Window p can be but one

First Grade

		TEXTS & RESOURCE MATERIALS		TEACHING AIDS
ts	1.	Jack and Janet, Houghton Mifflin Rolling Along, Scott, Foresman Six in a Mix, Harper & Row Green Feet, Blue Dilly Dilly, Economy Magic Rings & Funny Things Red Rock Ranch, Lyons & Carnahan Audio Reading Ll, Continuous Progress Lab	1.	Opague projector Practice finding names of story and page Film and filmstrips
	2.	Jack and Janet Peabody Kit Goldman Lynch Same readers as 1 Merrill Linguistic Readers 1 - 2 - 3.	2.	Sequence puzzles Use of art Tape recorder Listening station and stories on records Jack and Janet sequence cards
draw- r-	3.	Jack and Janet Peabody Kit Listening Games for Primary Grades Listen and Do, Houghton Mifflin Same readers as 1 Goldman Lynch Audio Reading Ll	3.	Writing stories (experience charts) Use of art Records: specific tasks from listening Listening activities to be read or taped
ant : ed, , fr, sk, mp, nk, nt ke, ame, k, ast, r), eat, ied,	4.	Jack and Janet Phonics We Use Book B & C, Lyons & Carnahan Sounds to Words, Silver-Burdett Lippincott Phonics SRA Basic Reading Series, Level C Sounds and Symbols, Ginn and Co. Ideal consonant cards SCC, Open Highways, Scott Foresman Dolch Word List Same readers as 1 Audio Reading Ll	4.	Reading sheets and workbook Flash cards Tape recorder--listening to word skills Typewriter We Can Read, Continental Press "Tachistoscopes" for new reading words used together with big chart "Jack-in-the-Box"--flash card game pulling out of regular cardboard box which is decorated with a "Jack-in-the-Box" "Window peeper" markers for reading can be used to cover all of page but one line or all but one word.

STEP III: (FIRST READER) First Grade continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
ist, ite, oat, old, ole, ook, oon, ose, ouch, ould, ound, out, ow (now), oy, ug, ump, un, unny, up, ust, ut Merrill Linguistic = M L		

TEXTS & RESOURCE MATERIALS	TEACHING AIDS

STEP IV: Grade 1^2

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
1. Choosing right word meaning	1. Merrill Linguistic Readers 2-3 Red Rock Ranch, Lyons & Carnahan Blue Dilly, Dilly, Economy Company Up and Away, Houghton Mifflin SRA Lab Ia It Happens on a Ranch, Harper & Row Peabody Kit Audio Reading L1	1. Workbook My Picture Ditto she
2. Maintenance of skills previously taught	2. On Cherry Street, Ginn & Company Peppermint Fence, Heath Company	2. Workbook
3. Word skills: z, s, sound of c j sound of g f sound of gh f sound of ph short and long oo short e sound of a short a sound of ai long e sound of ee long o short e u presented as needed Contractions Silent e on end More initial consonant substitution Phonograms: ace, ag, age, ai, ain, aint, air, ait, alk, ar, arge, arm, art, ate, ea, each, ead (head), ean, ear, (bear), ell, ept, etter, ever, ice, ich, icle, illy, ime, ink, ipe, ive, ize, ocket, one, ong, oom, or, ore, oss, other, our,	3. Up and Away, Houghton Mifflin Phonics We Use Book B, Lyons & Carnahan Sounds to Words, Silver-Burdett SRA Lab Ia Vowels and Variants, Ginn & Company SRA Basic Reading Series, Level D M.L. Readers 2-3 First Steps Audio Reading L1 & L2	3. Workbook Word buil Cutting, with so vowels Spelling "Shoot fo to keep (Move r 100.) Typewrite Continenta

	TEXTS & RESOURCE MATERIALS		TEACHING AIDS
meaning 1.	Merrill Linguistic Readers 2-3 *Red Rock Ranch*, Lyons & Carnahan *Blue Dilly, Dilly*, Economy Company *Up and Away*, Houghton Mifflin *SRA Lab Ia* *It Happens on a Ranch*, Harper & Row Peabody Kit *Audio Reading L1*	1.	Workbook and reading sheets-M.L. worksh *My Picture Dictionary* Ditto sheets with definition tests
s previ- 2.	*On Cherry Street*, Ginn & Company *Peppermint Fence*, Heath Company	2.	Workbook and reading sheets
3.	*Up and Away*, Houghton Mifflin *Phonics We Use Book B*, Lyons & Carnahan *Sounds to Words*, Silver-Burdett *SRA Lab Ia* *Vowels and Variants*, Ginn & Company *SRA Basic Reading Series*, Level D M.L. Readers 2-3 First Steps *Audio Reading L1 & L2*	3.	Workbook and reading sheets Word builder Cutting, matching and pasting papers with sounds of short and long vowels Spelling "Shoot for the Moon"--spelling chart to keep count of perfect papers (Move rockets each time they make 100.) Typewriter Continental Press Materials

i

ded

nant

ag, age, ai,
ait, alk, ar,
ate, ea,
, ean, ear,
, etter, ever,
illy, ime, ink,
cket, one, ong,
s, other, our,

STEP IV: Grade 1-2 Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACH
ouse, over, own (grown), uch, uck, ull (pull), urry		

Continued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
own), uch, ry		

STEP V: Grade 2^1

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
1. Distinguish between fiction and non-fiction	1. Sea of Magic Ink, Harper & Row More Power, Scott, Foresman Merrill Ling. 4	1. Home read Poems and Worksheet
2. Drawing conclusions	2. Come Along, Houghton Mifflin Peabody Kit Young America L7 - Lyons & Carnahan Curbstone Dragon - Economy Audio Reading L1 & L2	2. Workbook Reading S Picture s 1. Hav conclus retaine
3. Getting main idea	3. Come Along SRA Reading Lab Ia, listening part We Can Read, Continental Press SCC, Open Highways, Scott, Foresman Goldman-Lynch Young America L7 Curbstone Dragon-Economy Co. Merrill Ling. 4 Audio Reading L1 and L2	3. Workbook Short par for Oral read The Pract Treasur
4. Reading for details	4. Come Along SRA Reading Lab Ia Play Time, Steck-Vaughn Sky Blue, Heath Co. Listen and Do, Houghton Mifflin Merrill Ling. 4 Young America L7 Curbstone Dragons Audio Reading L1 and L2	4. Workbook Listening perhaps Boardwork about s
5. Interpreting pronouns and adverbs	5. Spell Correctly, Book 2, Silver-Burdett Basic Spelling Goals, Book 2, Webster Spelling Growth, Economy Co. Spelling & Writing Patterns, Follette Merrill Ling. Skills text	5. Workbook Matching Continent

		TEXTS & RESOURCE MATERIALS		TEACHING AIDS
fiction	1.	Sea of Magic Ink, Harper & Row More Power, Scott, Foresman Merrill Ling. 4	1.	Home readers Poems and stories to be read Worksheets - Merrill Ling. 4
	2.	Come Along, Houghton Mifflin Peabody Kit Young America L7 - Lyons & Carnahan Curbstone Dragon - Economy Audio Reading L1 & L2	2.	Workbook and reading sheets Reading Seatwork 2nd, McGraw-Hill Picture story cards: Show 3 and save 1. Have children tell what the conclusion is and then show retained picture.
	3.	Come Along SRA Reading Lab Ia, listening part We Can Read, Continental Press SCC, Open Highways, Scott, Foresman Goldman-Lynch Young America L7 Curbstone Dragon-Economy Co. Merrill Ling. 4 Audio Reading L1 and L2	3.	Workbook and reading sheets Short paragraphs to make up a story for Oral reading The Practice Workbook of Reading--Treasure Book
	4.	Come Along SRA Reading Lab Ia Play Time, Steck-Vaughn Sky Blue, Heath Co. Listen and Do, Houghton Mifflin Merrill Ling. 4 Young America L7 Curbstone Dragons Audio Reading L1 and L2	4.	Workbook and reading sheets Listening to oral reading (tapes perhaps) Boardwork on answering questions about stories
s	5.	Spell Correctly, Book 2, Silver-Burdett Basic Spelling Goals, Book 2, Webster Spelling Growth, Economy Co. Spelling & Writing Patterns, Follette Merrill Ling. Skills text	5.	Workbook and reading sheets Matching games in "Pronoun Columns" Continental Press materials

STEP V Grade 2^1 continued

	SKILLS		TEXTS & RESOURCE MATERIALS		TEACHING
6.	Choosing the right word meaning	6.	English, Book 1, Continental Press New Directions, Book 2, Harper Row Language 2, Webster Young America L 7 Curbstone Dragons Universal English 2, Merrill Merrill	6.	Workbook Definitio Tic-Tac-T Study Sco
7.	Interpreting commas	7.	Come Along Language 2, Webster Continental Press materials	7.	Workbook Punctuat from Ha Flannel b Magnetic
8.	Word skills: ow (how) Short and long a Short and long i Short and long o Short and long u ai, ay, ee, ea, oa, ie Blends: dr, gl, sc, sch, sm, sn, tw, Silent b, g, t Endings: er, y, ly, changed to i Phonograms: able, ange, ass, aster, aze, eam, eg, ense, ess, ief, ies, ife, igger, ix, oad, oast, ollar, allow, any, oar, ope, ought, ove (love), owl (howl), udge, ue, uit, unch, url, urn	8.	Come Along Spell Correctly Book 2, Silver-Burdett* Basic Spelling Goals, Webster Phonics We Use Book C, Lyons & Carnahan Spelling Growth, Economy Co. Young America, L 7 Curbstone Dragons Power to Spell 2 Audio Reading L 1 and L 2	8.	Workbook Phonetic Vowel sou Consonant Choosing sounds (Cut ou Language Controlle Word buil "Feeley M Feel an sounds an appl Vowel Pic Merrill L

ontinued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
ord	6. English, Book 1, Continental Press New Directions, Book 2, Harper Row Language 2, Webster Young America L 7 Curbstone Dragons Universal English 2, Merrill Merrill	6. Workbook and reading sheets Definition quizzes Tic-Tac-Toe game Study Scopes, Tyler, Texas
	7. Come Along Language 2, Webster Continental Press materials	7. Workbook and reading materials Punctuation for Beginners--a film from Harris County Film Library Flannel board Magretic board
, ie c, sch, y, ange, am, eg, s, ife, st, oar, ove), ue, n	8. Come Along Spell Correctly Book 2, Silver-Burdett* Basic Spelling Goals, Webster Phonics We Use Book C, Lyons & Carnahan Spelling Growth, Economy Co. Young America, L 7 Curbstone Dragons Power to Spell 2 Audio Reading L 1 and L 2	8. Workbook and reading sheets Phonetic Quizmo, Milton Bradley Vowel sound games played as Bingo Consonant sound games played as Bingo Choosing pictures from magazines for sounds of vowels and blends, etc. (Cut out and put on giant chart.) Language Master Controlled Reader Word builder "Feeley Meely" Game: Feel and find objects with vowel sounds being studied, such as an apple for the short sound of a. Vowel Picture Cards, Ideal Merrill Ling. Guide sheets

STEP VI: Grade 2^2

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Maintenance of all skills previously taught	1. Merrill Linguistic Reader-4 Power to Spell 2 Young America L8 Mustard Seed Magic Audio Reading L1 & L2 On We Go, Houghton Mifflin Spell Correctly Book 2, Silver-Burdett Spelling Goals, Webster Phonics We Use Book C, Lyons & Carnahan	1. Workbook a Flannel bo Magnetic b
2. Remembering sequence of ideas	2. Merrill Linguistic Reader-4 Specific Skills Series, Barnell Loft Mustard See Magic Young America L8 On We Go Moving Along, Scott, Foresman	2. Workbook a Tape recor Sequence p
3. Getting the main ideas	3. Merrill Linguistic Reader-4 Young America L8 Mustard See Magic On We Go Moving Ahead, Scott, Foresman Childcraft books Peabody Kit Audio Reading L1 & L2	3. Workbooks Stories to Listening Lab Ia
4. Noting and remembering details	4. Merrill Linguistic Reader-4 Young America L8 Mustard Seed Magic Audio Reading L1 & L2 On We Go SRA Reading Lab Ia Peabody Kit Star Bright, Heath Company	4. Workbook a Tape recor Use of art Experience activity

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
kills	1. Merrill Linguistic Reader-4 Power to Spell 2 Young America L8 Mustard Seed Magic Audio Reading L1 & L2 On We Go, Houghton Mifflin Spell Correctly Book 2, Silver-Burdett Spelling Goals, Webster Phonics We Use Book C, Lyons & Carnahan	1. Workbook and reading sheets Flannel board Magnetic board
of	2. Merrill Linguistic Reader-4 Specific Skills Series, Barnell Loft Mustard See Magic Young America L8 On We Go Moving Along, Scott, Foresman	2. Workbook and reading sheets Tape recorder Sequence puzzles
as	3. Merrill Linguistic Reader-4 Young America L8 Mustard See Magic On We Go Moving Ahead, Scott, Foresman Childcraft books Peabody Kit Audio Reading L1 & L2	3. Workbooks and reading sheets Stories to be read and discussed Listening skills of SRA Reading Lab Ia
ng	4. Merrill Linguistic Reader-4 Young America L8 Mustard Seed Magic Audio Reading L1 & L2 On We Go SRA Reading Lab Ia Peabody Kit Star Bright, Heath Company	4. Workbook and reading sheets Tape recorder Use of art Experience charts--"Show and Share" activity

STEP VI: Grade 2^2 Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
5. Interpreting pronouns	5. Basic Spelling Goals, Webster New Directions, Book 2, Harper & Row Spell Correctly, Book 2, Silver-Burdett Powers to Spell 2	5. Listening Tape reco Continent Workbook
6. Drawing conclusions	6. Merrill Linguistic Reader-4 Young America L8 Mustard Seed Magic Audio Reading L1 & L2 On We Go Moving Along, Scott, Foresman SRA Reading Lab Ia Peabody Kit	6. Workbook Use of ar The Pract Treasur
7. Interpreting comma	7. New Directions, Book 2 Spell Correctly, Book 2 English Grade 2, Steck-Vaughn English 2, Continental Press Hayes Language Drills and Tests, Hayes School Pub. Co., Williamsburg, PA. Universal English 2, Merrill Ginn Elementary English 2	7. Workbook Continent Teacher-m Punctuati Harris Filmstrip
8. Word skills: Sound of ow, ou, oi, oy Common sounds of ar, ur, er, ir Sounds of au, aw Blends spr, lt, nch Silent h, w Endings: est, n, en, ful Prefixes: re, un y changes to i before certain endings Listening for and counting vowels sounds in words as a clue for syllabication	8. Spelling & Writing Patterns, Follette On We Go Phonics We Use Book D & C, Lyons & Carnahan Basic Spelling Goals, Book 2, Webster Spell Correctly, Book 2, Silver-Burdett Power to Spell 3 Young America L8 Mustard Seed Magic Audio Reading L1 & L2	8. Flannel b Continenta Phonics Q Charts Flip and Language Word buil Card game changing My Puzzle

ontinued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
ns	5. Basic Spelling Goals, Webster New Directions, Book 2, Harper & Row Spell Correctly, Book 2, Silver-Burdett Powers to Spell 2	5. Listening posts Tape recorder Continental Press materials Workbook and reading sheets
	6. Merrill Linguistic Reader-4 Young America L8 Mustard Seed Magic Audio Reading L1 & L2 On We Go Moving Along, Scott, Foresman SRA Reading Lab Ia Peabody Kit	6. Workbook and reading sheets Use of art The Practice Workbook of Reading--Treasure Book
	7. New Directions, Book 2 Spell Correctly, Book 2 English Grade 2, Steck-Vaughn English 2, Continental Press Hayes Language Drills and Tests, Hayes School Pub. Co., Williamsburg, PA. Universal English 2, Merrill Ginn Elementary English 2	7. Workbook and reading sheets Continental Press materials Teacher-made materials Punctuation for Beginners--a film from Harris Count Film Library Filmstrips (Use film catalog.)
oi, oy ar, ur, ch en, ful fore	8. Spelling & Writing Patterns, Follette On We Go Phonics We Use Book D & C, Lyons & Carnahan Basic Spelling Goals, Book 2, Webster Spell Correctly, Book 2, Silver-Burdett Power to Spell 3 Young America L8 Mustard Seed Magic Audio Reading L1 & L2	8. Flannel board Continental Press materials Phonics Quizmo, Milton Bradley Charts Flip and Build Cards, root work placed Language Master Word builder Card game that builds new words by changing ending sounds My Puzzle Book I, Dolch
ounting n ords yll i-		

STEP VI: Grade 2^2 Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
8. Phonograms: aid, airy, amp, ance, aper, are, arp, arrow, atter, ead (bead), eal, eck, eel, eer, elves, em, est, ift, inger (finger), inner, inter, iss, oan, obe, oint, oise, oke, oth, ower (flower), ud, uff, uffle, ung, unk, utter		
9. Enrichment	9. All possible library resources Peabody Kit SRA Reading Lab Ia Jim Forest, Deep-Sea Adventures, Harr-Wagner Readers SCC, Open Highways Program, Scott, Foresman	9. Steps to L Controlled TV program Tapes Films Book repor "Show and Field trip

inued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
, airy, amp, , arp, ad (bead), eer, , ift, , inner, , obe, , oth, ud, uff, , utter		
	9. All possible library resources Peabody Kit SRA Reading Lab Ia Jim Forest, Deep-Sea Adventures, Harr-Wagner Readers SCC, Open Highways Program, Scott, Foresman	9. Steps to Learning, Book 1, Steck-Vaughn Controlled Reader TV programs Tapes Films Book reports "Show and Share" experiences Field trips

STEP VII 3^1

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
1. Maintenance of all skills previously taught, remediation if necessary	1. Merrill Ling. 5 Looking Ahead, Houghton Mifflin Phonics We Use Book D, Lyons & Carnahan Spell Correctly, Book 3, Silver-Burdett Basic Spelling Goals, Book 3, Webster SRA Reading Lab Ia SRA Basic Reading Series, Level E Work Time, Grade 3 work text, Steck-Vaughn Young America L 9, Lyons & Carnahan Air Pudding and Wind Sauce, Economy Power to Spell 3 Audio Reading L 3	1. Workbook Continent Opague pr Tape reco Records I Learn t 1,2,3)
2. Appreciating figurative language	2. Looking Ahead Peabody Kit Thorndike-Barnhart Beginning Dictionary SRA Reading Lab Ia Winging Through Lights and Shadows, Harper & Row Splendid Journey, Scott, Foresman	2. Workbooks Home read Neurologi Follow th Spring Br
3. Word skills: Blends: scr, sp, squ, sw Endings: le, ty, ture, tion Prefixes: en, ex, de, com, dis, in, im Syllabication: learning three rules for dividing a known word into syllables Phonograms: ale, ang, anger, (danger), ape, eak, eather (Feather), elf, elt, ie, ipper, oft, oin, oof, opper, om, ost, ule, ush, ute	3. Looking Ahead Phonics We Use Book D, Lyons & Carnahan Spell Correctly Basic Spelling Goals, Webster SRA Reading Lab Ia New Directions, Book 3, Harper & Row Spelling Growth, Economy Co. Power to Spell 3 Spelling and Writing Patterns, Follette Young America L9, Air Pudding and Wind Sauce Audio Reading L3	3. Workbook Tapes Phonetic Games for Bingo Nodding h stompin Typewrite

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
skills remediation	1. Merrill Ling. 5 *Looking Ahead*, Houghton Mifflin *Phonics We Use Book D*, Lyons & Carnahan *Spell Correctly, Book 3*, Silver-Burdett *Basic Spelling Goals, Book 3*, Webster *SRA Reading Lab Ia* *SRA Basic Reading Series, Level E* *Work Time*, Grade 3 work text, Steck-Vaughn *Young America L 9*, Lyons & Carnahan *Air Pudding and Wind Sauce*, Economy *Power to Spell 3* *Audio Reading L 3*	1. Workbook and reading sheets Continental Press materials Opague projector Tape recorder Records *I Learn to Read, Book 1* (for grades 1,2,3) Kenworthy Activity Book
tive	2. *Looking Ahead* Peabody Kit *Thorndike-Barnhart Beginning Dictionary* *SRA Reading Lab Ia* *Winging Through Lights and Shadows*, Harper & Row *Splendid Journey*, Scott, Foresman	2. Workbooks and reading sheets Home readers Neurological Impress Method of Reading Follow the "bouncing pen" techniques Spring Branch Salt Grass Trail Contest
squ, sw ture, tion , de, com, earning three ing a known bles ang, , ape, eak,), elf, oft, oin, ost, ule,	3. *Looking Ahead* *Phonics We Use Book D*, Lyons & Carnahan *Spell Correctly* *Basic Spelling Goals*, Webster *SRA Reading Lab Ia* *New Directions, Book 3*, Harper & Row *Spelling Growth*, Economy Co. *Power to Spell 3* *Spelling and Writing Patterns*, Follette *Young America L9*, *Air Pudding and Wind Sauce* *Audio Reading L3*	3. Workbook and reading sheets Tapes *Phonetic Quizmo*, Milton Bradley Games for blends, etc., played like *Bingo* Nodding head and clapping hands, stomping feet to syllables Typewriter

STEP VIII 3^2

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Maintenance of all skills previously taught	1. Merrill Ling. 5 and 6 Young America L 10, Lyons & Carnahan Mysterious Wisteria, Economy Audio Reading L 3 Climbing Higher, Houghton Mifflin SRA Reading Lab 1a Phonics We Use Book E, Lyons & Carnahan	1. Workbook a Tapes Records Word Buildi
2. Interpreting use of commas: Indicate person spoken to. Separate items in a series. Set off explanatory material.	2. Basic Spelling Goals, Book 3, Webster New Directions, Book 3, Harper & Row English Grade 3, Steck-Vaughn English Work-Text, Steck-Vaughn Language for Daily Use, World Book Co. Merrill Ling. 5 and 6 Ginn Elem. English 3 Universal English 3, Merrill	2. Workbook a Bulletin bo Continental
3. Interpreting figures of speech--simile	3. Climbing Higher, Houghton Mifflin Dictionary Speeding Away, Scott, Foresman Merrill Ling. 5 and 6 Ginn Elem. English 3	3. Workbook a TV programs
4. Recognizing vivid language	4. Climbing Higher SRA Reading Lab Ia or Ic Dictionary Speeding Away, Scott, Foresman Merrill Ling. 5 and 6 Young America 10 Mysterious Wisteria	4. Workbook a Home reader Childcraft TV program Words"
5. Word skills: Blends: scr Endings: less, ness, ment, able Prefixes: per, con, for, pre Root words in variants Phongrams: alm, ant, asp,	5. Spell Correctly Book 3, Silver-Burdett Basic Spelling Goals, Book 3, Webster Phonics We Use Book E, Lyons & Carnahan Hayes Language Drills and Tests, Grade 3 Spelling Growth, Economy Co. Power to Spell 3	5. Workbook an Tapes Records Flannel boa Magnetic bo "Shoot for My Puzzle B Phonetic Qu

		TEXTS & RESOURCE MATERIALS		TEACHING AIDS
kills	1.	Merrill Ling. 5 and 6 Young America L 10, Lyons & Carnahan Mysterious Wisteria, Economy Audio Reading L 3 Climbing Higher, Houghton Mifflin SRA Reading Lab 1a Phonics We Use Book E, Lyons & Carnahan	1.	Workbook and reading sheets Tapes Records Word Building Lotto, Milton Bradley
commas: oken to. a series. y mate-	2.	Basic Spelling Goals, Book 3, Webster New Directions, Book 3, Harper & Row English Grade 3, Steck-Vaughn English Work-Text, Steck-Vaughn Language for Daily Use, World Book Co. Merrill Ling. 5 and 6 Ginn Elem. English 3 Universal English 3, Merrill	2.	Workbook and reading sheets Bulletin board materials Continental Press materials
of	3.	Climbing Higher, Houghton Mifflin Dictionary Speeding Away, Scott, Foresman Merrill Ling. 5 and 6 Ginn Elem. English 3	3.	Workbook and reading sheets TV programs on similes
nguage	4.	Climbing Higher SRA Reading Lab Ia or Ic Dictionary Speeding Away, Scott, Foresman Merrill Ling. 5 and 6 Young America 10 Mysterious Wisteria	4.	Workbook and reading sheets Home readers Childcraft books TV program on "Painting Pictures with Words"
ss, ment, n, for, ants nt, asp,	5.	Spell Correctly Book 3, Silver-Burdett Basic Spelling Goals, Book 3, Webster Phonics We Use Book E, Lyons & Carnahan Hayes Language Drills and Tests, Grade 3 Spelling Growth, Economy Co. Power to Spell 3	5.	Workbook and reading sheets Tapes Records Flannel board Magnetic board "Shoot for the Moon" spelling game My Puzzle Book 2, Dolch Phonetic Quizmo, Milton Bradley

STEP VIII 3^2 continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
ault, ibble, irt, oak, oil, ate, otion, uckle, umb, umble, unt, ure	Audio Reading L 3 Spelling & Writing Patterns, Follette	Controlle Language

tinued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
oak,	Audio Reading L 3	Controlled Reader
ckle,	Spelling & Writing Patterns, Follette	Language Master
re		

STEP IX: Grade 4

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Maintenance of skills previously taught	1. Spelling & Writing Patterns, Follette Merrill Linguistic Reader-6 High Roads, Houghton Mifflin Spell Correctly, Book 4, Silver-Burdett Basic Spelling Goals, Book 4, Webster Spelling Growth, Economy Company Power to Spell, 4 Audio Reading L3	1. Workbook Tapes and Bulletin Flannel b Charts Magnetic
2. Reading to draw conclusions	2. Merrill Linguistic Reader-6 High Roads Reader's Digest Skill Builders SRA Lab Ia or Ic, Listening Skill Builders Audio Reading L3 Open Highways Book 4, Scott, Foresman Specific Skill Series, Barnell Loft	2. Workbook Stories t Tapes Records t
3. Reading for details	3. Merrill Linguistic Reader-6 High Roads Reader's Digest Skill Builders SRA Lab Ia or Ic Open Highways Book 4, Scott, Foresman Audio Reading L3	3. Workbook Home read Writing ab My Country
4. Use of dictionary to get new word meanings	4. Thorndike-Barnhart Beginning Dictionary	4. Workbook Crossword
5. Use of "Table of Contents"	5. High Roads Today's Basic Science, Harper & Row Concepts in Science, Harcourt, Brace	5. Opague pr Social st Teacher-ma
6. Use of "Glossary"	6. High Roads Spell Correctly, Silver-Burdett Spelling Goals, Webster Power to Spell	6. Workbook Science ba Social st

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
s	1. Spelling & Writing Patterns, Follette Merrill Linguistic Reader-6 High Roads, Houghton Mifflin Spell Correctly, Book 4, Silver-Burdett Basic Spelling Goals, Book 4, Webster Spelling Growth, Economy Company Power to Spell, 4 Audio Reading L3	1. Workbook and reading sheets Tapes and tape recorder Bulletin boards Flannel boards Charts Magnetic board
lusions	2. Merrill Linguistic Reader-6 High Roads Reader's Digest Skill Builders SRA Lab Ia or Ic, Listening Skill Builders Audio Reading L3 Open Highways Book 4, Scott, Foresman Specific Skill Series, Barnell Loft	2. Workbook and reading sheets Stories to read Tapes Records to play with stories
	3. Merrill Linguistic Reader-6 High Roads Reader's Digest Skill Builders SRA Lab Ia or Ic Open Highways Book 4, Scott, Foresman Audio Reading L3	3. Workbook and reading sheets Home readers Writing about stories read My Country, Steck-Vaughn
get	4. Thorndike-Barnhart Beginning Dictionary	4. Workbook and reading sheets Crossword puzzles
ents"	5. High Roads Today's Basic Science, Harper & Row Concepts in Science, Harcourt, Brace	5. Opague projector Social studies books Teacher-made stencils
	6. High Roads Spell Correctly, Silver-Burdett Spelling Goals, Webster Power to Spell	6. Workbook and reading sheets Science basals Social studies basals

STEP IX: Grade 4 Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
7. Word skills: Maintenance of skills previously taught Common endings and common syllables Prefixes and suffixes Use of dictionary to check pronunciation Vocabulary development	7. High Roads Merrill Linguistic Reader-6 SRA Reading Lab Ia or Ic Reader's Digest Skill Builders Thorndike-Barnhart Beginning Dictionary Phonics We Use Book E, Lyons & Carnahan New Directions Book 4, Harper & Row	7. Workbook Free read Creative

tinued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
	7. High Roads	7. Workbook and reading sheets
ills	Merrill Linguistic Reader-6	Free reading in the library
ht	SRA Reading Lab Ia or Ic	Creative book reports
d	Reader's Digest Skill Builders	
s	Thorndike-Barnhart Beginning Dictionary	
ixes	Phonics We Use Book E, Lyons & Carnahan	
to check	New Directions Book 4, Harper & Row	
pment		

STEP X Grade 4

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Reading for details	1. High Roads, Houghton Mifflin Reader's Digest Skill Builders SRA Reading Lab Ia or Ic Open Highways Book 4, Scott, Foresman Listen and Think, Developmental Laboratories Peacock Lane Audio Reading L 3	1. Workbook a Home reade Tape recor
2. Arranging ideas in correct sequence	2. SRA Reading Lab Ia or Ic High Roads Open Highways Book 4, Scott, Foresman Listen and Think, Educational Developmental Laboratories Specific Skill Series, Barnell Loft	2. Workbook a Tape recor Sequence p
3. Reading for the main idea	3. High Roads Reader's Digest Skill Builders Open Highways Book 4, Scott, Foresman SRA Reading Lab Ia or Ic, listening skills Listen and Think, Educational Developmental Laboratories Peacock Lane	3. Workbook a Tape recor Social stu
4. Using the index and table of contents	4. High Roads Today's Basic Science, Harper & Row Concepts in Science, Harcourt, Brace* Peacock Lane	4. Workbook a Social stu Opague pro
5. Choosing sub-topics	5. High Roads Social studies basal Reader's Digest Skill Builders Peacock Lane	5. Workbook a Visits to

44

		TEXTS & RESOURCE MATERIALS		TEACHING AIDS
	1.	High Roads, Houghton Mifflin Reader's Digest Skill Builders SRA Reading Lab Ia or Ic Open Highways Book 4, Scott, Foresman Listen and Think, Developmental Laboratories Peacock Lane Audio Reading L 3	1.	Workbook and reading sheets Home readers Tape recorders
orrect	2.	SRA Reading Lab Ia or Ic High Roads Open Highways Book 4, Scott, Foresman Listen and Think, Educational Developmental Laboratories Specific Skill Series, Barnell Loft	2.	Workbook and reading sheets Tape recorder Sequence puzzles
idea	3.	High Roads Reader's Digest Skill Builders Open Highways Book 4, Scott, Foresman SRA Reading Lab Ia or Ic, listening skills Listen and Think, Educational Developmental Laboratories Peacock Lane	3.	Workbook and reading sheets Tape recorder Social studies basal
table	4.	High Roads Today's Basic Science, Harper & Row Concepts in Science, Harcourt, Brace* Peacock Lane	4.	Workbook and reading sheets Social studies basal Opague projector
	5.	High Roads Social studies basal Reader's Digest Skill Builders Peacock Lane	5.	Workbook and reading sheets Visits to library--discussions

STEP X Grade 4 continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
6. Choosing key words	6. High Roads SRA Reading Lab Ia or Ic Reader's Digest Skill Builders Peacock Lane	6. Workbooks a Crossword p Teacher-mad
7. Deciding on paragraph topics	7. High Roads	7. Workbook an Social stud
8. Locating words in a dictionary	8. Thorndike-Barnhart Beginning Dictionary Spell Correctly, Silver-Burdett Basic Spelling Goals Book 4, Webster Power to Spell	8. Workbook an Science bas
9. Word skills: Maintenance of skills previously taught Finding root words	9. Spell Correctly Book 4, Silver-Burdett Phonics We Use Book F, Lyons & Carnahan New Directions Book 4, Harper & Row Basic Spelling Goals Book 4, Webster Conquests in Reading, Kottmeyer and Ware Learning and Writing English, Steck-Vaughn New Practice Readers, Book D, Stone & Grover Power to Spell, Bk. 4 Ginn Elem. English Spelling and Writing Patterns, Follette Universal English, Merrill	9. Workbook an Phonetic Qu Language Ma Controlled Audio Readi

d

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
	6. High Roads SRA Reading Lab Ia or Ic Reader's Digest Skill Builders Peacock Lane	6. Workbooks and reading sheets Crossword puzzles Teacher-made materials
topics	7. High Roads	7. Workbook and reading sheets Social studies basal
iction-	8. Thorndike-Barnhart Beginning Dictionary Spell Correctly, Silver-Burdett Basic Spelling Goals Book 4, Webster Power to Spell	8. Workbook and reading sheets Science basals
ls	9. Spell Correctly Book 4, Silver-Burdett Phonics We Use Book F, Lyons & Carnahan New Directions Book 4, Harper & Row Basic Spelling Goals Book 4, Webster Conquests in Reading, Kottmeyer and Ware Learning and Writing English, Steck-Vaughn New Practice Readers, Book D, Stone & Grover Power to Spell, Bk. 4 Ginn Elem. English Spelling and Writing Patterns, Follette Universal English, Merrill	9. Workbook and reading sheets Phonetic Quizmo, Milton Bradley Language Master Controlled Reader Audio Reading L 3

STEP XI Grade 4

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Maintenance of skills previously taught	1. Spelling and Writing Patterns, Follette D High Roads, Houghton Mifflin Spelling Goals Book 4, Webster Spell Correctly Book 4, Silver-Burdett SRA Reading Lab Ia or Ic Power to Spell - Book 4	1. Workbook a Flannel bo Magnetic b Chalk boar Crossword
2. Interpreting the feelings of a story character	2. Peabody Kit Open Highways Book 4, Scott, Foresman Listen and Think, Educational Developmental Laboratories	2. Use of pup Tape recor Wide use o
3. Finding information	3. High Roads Reader's Digest Skills Builders Encyclopedias Card Catalog in library Specific Skills Series, Barnell-Loft	3. Index in b Table of c Dictionari
4. Interpreting figures of speech	4. High Roads New Directions Book 4, Harper & Row Spell Correctly Book 4, Silver-Burdett	4. Workbook an Continental
5. Reading to show feeling	5. High Roads Open Highways Book 4, Scott, Foresman	5. Tape record Records
6. Interpreting punctuation marks	6. High Roads New Directions Book 4, Harper & Row Open Highways, Book 4, Scott, Foresman Specific Skills Series, Barnell Loft	6. Workbook an Continental Reading sto Filmstrips
7. Visualizing what we read	7. Listen and Think, Educational Developmental Laboratories Peabody Kit	7. Use of art Use of dram Use of pupp
8. Maintenance of skills previously taught	8. Phonics We Use Book F, Lyons & Carnahan New Directions Book 4, Harper & Row Spell Correctly Book 4, Silver-Burdett Enjoying English, Singer	8. Continental Workbooks a accompany

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
	1. Spelling and Writing Patterns, Follette D High Roads, Houghton Mifflin Spelling Goals Book 4, Webster Spell Correctly Book 4, Silver-Burdett SRA Reading Lab Ia or Ic Power to Spell - Book 4	1. Workbook and reading sheets Flannel board Magnetic board Chalk board Crossword puzzles
ings	2. Peabody Kit Open Highways Book 4, Scott, Foresman Listen and Think, Educational Developmental Laboratories	2. Use of puppets and dramatization Tape recorder Wide use of library
	3. High Roads Reader's Digest Skills Builders Encyclopedias Card Catalog in library Specific Skills Series, Barnell-Loft	3. Index in basal books Table of contents in textbooks Dictionaries
of	4. High Roads New Directions Book 4, Harper & Row Spell Correctly Book 4, Silver-Burdett	4. Workbook and reading sheets Continental Press materials
ng	5. High Roads Open Highways Book 4, Scott, Foresman	5. Tape recorder and tapes Records
ion	6. High Roads New Directions Book 4, Harper & Row Open Highways, Book 4, Scott, Foresman Specific Skills Series, Barnell Loft	6. Workbook and reading sheets Continental Press materials Reading stories to tape Filmstrips
ead	7. Listen and Think, Educational Developmental Laboratories Peabody Kit	7. Use of art Use of dramatization Use of puppets
	8. Phonics We Use Book F, Lyons & Carnahan New Directions Book 4, Harper & Row Spell Correctly Book 4, Silver-Burdett Enjoying English, Singer	8. Continental Press dittos and workbooks Workbooks and reading sheets to accompany High Roads

STEP XI Grade 4 continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
9. Using the dictionary to find word meanings	9. Thorndike-Barnhart Beginning Dictionary	9. Crossword

continued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
y to	9. Thorndike-Barnhart Beginning Dictionary	9. Crossword puzzles

STEP XII: Grade 5

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Maintenance of skills previously taught	1. Spelling and Writing Patterns, Follette Across Blue Bridge & Silver Webb Sky Lines, Houghton Mifflin Spell Correctly Book 5, Silver-Burdett New Directions Book 5, Harper & Row New Goals in Reading, Steck-Vaughn Power to Spell-5 Ginn Elem. English 5	1. Workbook an Teacher-mad Charts Bulletin bo Continental
2. Voice intonations in oral reading	2. Open Highways Book 5, Scott, Foresman Tales to Enjoy, Laidlaw Brothers Up Bright Peaks, Heath Co. Silver Webb	2. Tape record Listening t Reading to
3. Reading different kinds of typewriter type	3. Library books	3. Magazines Newspapers Teacher-made typewriter Teacher-made typewriter Teacher-made typewriter
4. Using the dictionary to get word meanings	4. Thorndike-Barnhart Junior Dictionary New Directions Book 5, Harper & Row Ginn Elem. English - 5	4. Films and fi Opague proje
5. Word skills: Interpreting marks of punctuation--colon and dash	5. Sky Lines Spell Correctly Book 5, Silver-Burdett Basic Spelling Goals Book 5, Webster Phonics We Use Book G, Lyons & Carnahan New Directions Book 5, Harper & Row Ginn Elem. English - 5 Power to Spell - 5	5. Workbook and Films and fi Opague proje

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
s	1. Spelling and Writing Patterns, Follette Across Blue Bridge & Silver Webb Sky Lines, Houghton Mifflin Spell Correctly Book 5, Silver-Burdett New Directions Book 5, Harper & Row New Goals in Reading, Steck-Vaughn Power to Spell-5 Ginn Elem. English 5	1. Workbook and reading sheets Teacher-made materials Charts Bulletin boards Continental Press materials
	2. Open Highways Book 5, Scott, Foresman Tales to Enjoy, Laidlaw Brothers Up Bright Peaks, Heath Co. Silver Webb	2. Tape recorder Listening to stories on tape or record Reading to children
nds of	3. Library books	3. Magazines Newspapers and Weekly Reader Teacher-made materials on regular typewriter Teacher-made materials on primary typewriter Teacher-made materials on cursive typewriter
to	4. Thorndike-Barnhart Junior Dictionary New Directions Book 5, Harper & Row Ginn Elem. English - 5	4. Films and filmstrips Opague projector
of n and	5. Sky Lines Spell Correctly Book 5, Silver-Burdett Basic Spelling Goals Book 5, Webster Phonics We Use Book G, Lyons & Carnahan New Directions Book 5, Harper & Row Ginn Elem. English - 5 Power to Spell - 5	5. Workbook and reading sheets Films and filmstrips Opague projector

STEP XIII: Grade 5

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING A
1. Maintenance of skills previously taught	1. Across Blue Bridge-Silver Webb Sky Lines, Houghton Mifflin SRA Reading Lab Ic Thorndike-Barnhart Junior Dictionary Phonics We Use Book G, Lyons & Carnahan	1. Workbooks Controlled Language M Tape recor
2. Interpreting figures of speech--simile	2. Across Blue Bridge-Silver Webb Sky Lines Spell Correctly Book 5, Silver-Burdett Power to Spell - 5 New Directions Book 5, Harper & Row Basic Spelling Goals Book 5, Webster Ginn Elem. English - Book 5	2. Workbook a Crossword Continenta
3. Deciding on main topics for an outline	3. Open Highways Book 5, Scott, Foresman New Directions Book 5, Harper & Row SRA Reading Lab Ic Ginn Elem. English Book 5 Across Blue Bridge Silver Web	3. Library bo Book repor Films and
4. Making an outline	4. Concepts in Science, Book 5, Harcourt, Brace Today's Basic Science, Book 5, Harper & Row New Directions, Book 5, Harper & Row Ginn Elem. English Book 5	4. Opague pro Teacher-ma
5. Word skills-maintenance of skills previously taught	5. Phonics We Use Book G, Lyons & Carnahan Spell Correctly, Book 5, Silver-Burdett New Directions, Book 5, Harper & Row Across Blue Bridge-Silver Web Basic Spelling Goals, Book 5, Webster Ginn Elem. English Book 5 Power to Spell - 5	5. Workbook a Tapes Phonetic r Phonetic Q Continenta

		TEXTS & RESOURCE MATERIALS		TEACHING AIDS
lls	1.	Across Blue Bridge-Silver Webb Sky Lines, Houghton Mifflin SRA Reading Lab Ic Thorndike-Barnhart Junior Dictionary Phonics We Use Book G, Lyons & Carnahan	1.	Workbooks and reading sheets Controlled Reader Language Master Tape recorder
es of	2.	Across Blue Bridge-Silver Webb Sky Lines Spell Correctly Book 5, Silver-Burdett Power to Spell - 5 New Directions Book 5, Harper & Row Basic Spelling Goals Book 5, Webster Ginn Elem. English - Book 5	2.	Workbook and reading sheets Crossword puzzles Continental Press materials
pics	3.	Open Highways Book 5, Scott, Foresman New Directions Book 5, Harper & Row SRA Reading Lab Ic Ginn Elem. English Book 5 Across Blue Bridge Silver Web	3.	Library books Book reports Films and filmstrips
	4.	Concepts in Science, Book 5, Harcourt, Brace Today's Basic Science, Book [illegible]. Harper & Row New Directions, Book 5, Harper & Row Ginn Elem. English Book 5	4.	Opague projector Teacher-made stencils
ance of aught	5.	Phonics We Use Book G, Lyons & Carnahan Spell Correctly, Book 5, Silver-Burdett New Directions, Book 5, Harper & Row Across Blue Bridge-Silver Web Basic Spelling Goals, Book 5, Webster Ginn Elem. English Book 5 Power to Spell - 5	5.	Workbook and reading sheets Tapes Phonetic records Phonetic Quizmo, Milton Bradley Continental Press materials

STEP XIII: Grade 5 Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING AI
6. Enrichment	6. Library Concepts in Science, Book 5, Harcourt, Brace Today's Basic Science, Book 5, Harper & Row Peabody Kit SRA Reading Lab Ic, listening part	6. Home reader Social studi Written boo Dramatizing

tinued

TEXTS & RESOURCE MATERIALS	TEACHING AIDS
6. Library *Concepts in Science, Book 5,* Harcourt, Brace *Today's Basic Science, Book 5,* Harper & Row Peabody Kit *SRA Reading Lab Ic*, listening part	6. Home readers Social studies basal Written book reports Dramatizing books

STEP XIV: Grade 5

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING
1. Maintenance of skills previously taught	1. Across Blue Bridge-Silver Web Sky Lines, Houghton Mifflin SRA Reading Lab Ic Reader's Digest Skill Builders Phonics We Use Book B, Lyons & Carnahan Basic Spelling Goals, Book 5, Webster Power to Spell - 5	1. Workbook a Tape recor Charts Blackboard Controlled
2. Studying paragraphs	2. Sky Lines Open Highways, Book 5, Scott, Foresman Across Blue Bridge-Silver Web	2. Home reade Library bo Social stu
3. Using figurative language	3. Sky Lines Silver Web Basic Spelling Goals, Book 5, Webster New Directions, Book 5, Harper & Row Ginn Elem. English Book 5 Across Blue Bridge Power to Spell - 5	3. Reading sh Opague pro Continenta
4. Finding the main idea in a group of paragraphs	4. Sky Lines SRA Reading Lab IC Across Blue Bridge Silver Web Readers' Digest Skill Builders Specific Skills Series, Barnell Loft	4. Reading sh Controlled

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
lls	1. Across Blue Bridge-Silver Web Sky Lines, Houghton Mifflin SRA Reading Lab Ic Reader's Digest Skill Builders Phonics We Use Book B, Lyons & Carnahan Basic Spelling Goals, Book 5, Webster Power to Spell - 5	1. Workbook and reading sheets Tape recorder Charts Blackboard Controlled Reader
s	2. Sky Lines Open Highways, Book 5, Scott, Foresman Across Blue Bridge-Silver Web	2. Home readers Library books Social studies basal
anguage	3. Sky Lines Silver Web Basic Spelling Goals, Book 5, Webster New Directions, Book 5, Harper & Row Ginn Elem. English Book 5 Across Blue Bridge Power to Spell - 5	3. Reading sheets and workbooks Opague projector Continental Press materials
dea in a s	4. Sky Lines SRA Reading Lab IC Across Blue Bridge Silver Web Readers' Digest Skill Builders Specific Skills Series, Barnell Loft	4. Reading sheets and workbooks Controlled Reader

STEP XIV: Grade 5 Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING AI
5. Word skills: Maintenance of skills previously taught	5. Sky Lines, Houghton Mifflin Across Blue Bridge Silver Web English, Our Language, Steck-Vaughn Phonics We Use Book G, Lyons & Carnahan Spell Correctly Book 5, Silver-Burdett Basic Spelling Goals, Book 5, Webster New Directions, Book 5, Harper & Row Power to Spell Book 5 Ginn Elem. English Book 5 Specific Skills Series, Barnell Loft	5. Workbook an Controlled Language Ma Flannel boa Phonetic Qu

tinued

lls

t

TEXTS & RESOURCE MATERIALS	TEACHING AIDS
5. Sky Lines, Houghton Mifflin Across Blue Bridge Silver Web English, Our Language, Steck-Vaughn Phonics We Use Book G, Lyons & Carnahan Spell Correctly Book 5, Silver-Burdett Basic Spelling Goals, Book 5, Webster New Directions, Book 5, Harper & Row Power to Spell Book 5 Ginn Elem. English Book 5 Specific Skills Series, Barnell Loft	5. Workbook and reading sheets Controlled Reader Language Master Flannel board Phonetic Quizmo, Milton Bradley

STEP XV: Grade-Intermediate

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING AID
1. Enrichment	1. Bright Peaks, Houghton Mifflin Library books Peabody Kit SRA Reading Lab Ic Open Highways, Book 6, Scott, Foresman Today's Basic Science, Harper & Row Reader's Digest Skill Builders Concepts in Science, Harcourt, Brace	1. Controlled R Much outside Book reports Films Filmstrips Field trips Language Mas
2. Remediation	2.	2.
1. Phonics	1. The Macmillan Reading Spectrum	1. Word Anal
2. Understanding words: their origin, their meaning, their function, and their idiosyncrasies	2. The Macmillan Reading Spectrum Specific Skills Series, Barnell Loft, LTD	2. Vocabulary levels)
3. To help the child read more effectively the kinds of materials he will meet in the regular classroom program	3. The Macmillan Reading Spectrum Specific Skills Series, Barnell Loft,LTD	3. Reading C
4. To help non-readers read as much as they can	4. SRA Basic Reading Skills Know Your World Newspaper Bowmar books	4. Controlle Following to a st
5. To reinforce past reading skills; to increase reading ability	5. Reader's Digest Skill Builders Stories to Remember, Lyons & Carnahan (Classmates Edition) Specific Skills Series, Barnell Loft,LTD	5.
6. To increase listening skills and the appreciation of good literature	6. SRA Listening Skill Builder Texas State Library, Division for the Blind and Visually Handicapped Scholastic Book Services	6. Tape Reco Talking b Paperback ing lev

iate

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
	1. Bright Peaks, Houghton Mifflin Library books Peabody Kit SRA Reading Lab Ic Open Highways, Book 6, Scott, Foresman Today's Basic Science, Harper & Row Reader's Digest Skill Builders Concepts in Science, Harcourt, Brace	1. Controlled Reader Much outside reading Book reports Films Filmstrips Field trips Language Master
	2.	2.
	1. The Macmillan Reading Spectrum	1. Word Analysis Workbook (6 levels)
ds: r mean- on, and ies	2. The Macmillan Reading Spectrum Specific Skills Series, Barnell Loft, LTD	2. Vocabulary Development Workbook (6 levels)
read he kinds ll meet ssroom	3. The Macmillan Reading Spectrum Specific Skills Series, Barnell Loft,LTD	3. Reading Comprehension (6 levels)
s read n	4. SRA Basic Reading Skills Know Your World Newspaper Bowmar books	4. Controlled Reader Following in book while listening to a story on tape
read- rease	5. Reader's Digest Skill Builders Stories to Remember, Lyons & Carnahan (Classmates Edition) Specific Skills Series, Barnell Loft,LTD	5.
ing reci- rature	6. SRA Listening Skill Builder Texas State Library, Division for the Blind and Visually Handicapped Scholastic Book Services	6. Tape Recorder Talking books Paperback books: high interest-low reading level

STEP XV: Grade-Intermediate Continued

SKILLS	TEXTS & RESOURCE MATERIALS	TEACHING AI
7. Spelling reinforcement	7. Phonics We Use Book G, Lyons & Carnahan Basic Spelling Goals, Book 6, Webster Dr. Spello, Webster-McGraw Hill	7.
8. To increase reading ability	8. The Morgan Bay Mysteries, Field Education Pub. Inc. Wildlife Adventure Series, Field Education Pub. Inc. Deep Sea Adventure Series, Harr-Wagner World of Adventure Series, Benefic Press Jim Forest Series, Harr-Wagner Scope, Scholastic Book Service	8. Individua Impress r Kinesth glue Auditor liste Visual newsp

late Continued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
ment	7. Phonics We Use Book G, Lyons & Carnahan Basic Spelling Goals, Book 6, Webster Dr. Spello, Webster-McGraw Hill	7.
ng	8. The Morgan Bay Mysteries, Field Education Pub. Inc. Wildlife Adventure Series, Field Education Pub. Inc. Deep Sea Adventure Series, Harr-Wagner World of Adventure Series, Benefic Press Jim Forest Series, Harr-Wagner Scope, Scholastic Book Service	8. Individual vocabulary box Impress reading: Kinesthetic approach--sandpaper or glue Auditory approach--tape recorder, listening stations Visual approach--overhead projector, newspaper

MATHEMATICS

MATHEMATIC PROGRAM STEPS

Step I	Kindergarten
Step II	Grade I
Step III	
Step IV	
Step V	Grade 2
Step VI	
Step VII	
Step VIII	Grade 3
Step IX	
Step X	
Step XI	Grade 4
Step XII	
Step XIII	
Step XIV	Grade 5
Step XV	
Step XVI	
Step XVII	Intermediate

A Scope and Sequence Chart for Elementary School Mathema

TOPICS	KINDERGARTEN	GRADE 1	GRADE 2
Set Concepts	Comparing sets 22 31 Cardinal number of a set 35-72 Matching equivalent sets 26 Nonequivalent sets 31-32 Subsets 49-50 53/ Union of sets 47 54 63 Empty set 43	Comparing sets 1-10 51 55 Equivalent sets 3-6 Cardinal number of a set 11-15 Empty set 35 Union of sets and addition 57-68 Subsets 73-76 Sets and subtraction 75-82 Sets of ten 154-155	Comparing sets 1 Sets of ten 7 Union of sets and addition equations 31 35 Sets and subtraction equations 39 43 45 Partitioning of sets 71-74 149 151 Multiplication and sets 247 253 Product sets 261-264
Place Value		Introducing ten 153 Grouping by tens 157 Pennies and dimes 179	2- and 3-digit numerals 7 30 155 3- and 4-digit numerals 179-199 Regrouping 223-224
Operations		Addition and subtraction of whole numbers without regrouping 57-152. 199-222. 235-268 Inverse relation (+ and) 87-92. 106 118 134. 148 212. 260	Addition and subtraction of whole numbers without regrouping 31-178 Addition and subtraction of whole numbers with regrouping 209-240 Inverse relation (+ and) 47-50 98
Sequences	Counting sequences 55. 65. 75. 77 Pattern recognition 17-28	Counting and skip-counting sequences 44. 168-175. 271 Counting to 99 183	Counting sequences 13-14 16. 22. 26. 30 181-184. 190 192 Order—smallest to largest 21 Skip-counting sequences 199. 241-246
Inequalities	Comparison of sizes 1-5 More than and fewer than 21 One more than 47 Order of numbers zero through ten 65. 75	One more than 9. 19. 21. 23. 27. 29 Introduction of greater than and less than 51-56. 188-191 In money problems 194	Greater than and less than 6. 17-20. 185-188. 195 In story problems 197
Notation	Numerals 1 through 10 35-38. 43 51. 57. 61. 67. 71	Digits 11-15. 19-30/ Numeral writing. 39-43 Number line 49. 67. 81. 251 Symbols · and ·. 55. +. 59: . 73: ¢. 123: ( ). 227 addition — vertical. algorithm. 64 Two-digit numerals 159/ Expanded notation 241	Numeral writing 3 Addition and subtraction, vertical notation 53. 66. 79 Expanded notation 75 Roman numerals 137-138—Time 133-136 Symbols ( ). 71-74. 81. 142. ×. 249-266 . 267. ¢. 13 fraction symbols. 275-280
Number Facts	Intuitive introduction to addition 49. 53. 59 63. 69. 73 Intuitive introduction to subtraction 79-80	Addition and subtraction facts: sums through 9 61-152 Sums of ten 199-210 Addition and subtraction facts, sums through 18 243-264	Addition and subtraction facts. sums of 10 or less 31-7 Sums of 10-18. 81-130 Addition table 54. 94/ Missing addends 59 Multiplication facts. introduction 247-266
Equations and Solutions		Addition equations 61-83 Frames ( ) 61. and following Subtraction equations 75-77	Addition equations 31 Subtraction equations 39 Parentheses in equations 71 Writing equations 109 Multiplication equations 249
Number Line		Introduction to addition and subtraction 49. 67. 81. and following	Order 6/ Addition 33. 89 Subtraction 41. 107 Missing addends 60. 90 Writing equations 109 Rearranging addends 146 Multiplication 254. 255
Basic Principles	Commutative principle (intuitive)	Zero principle for addition 68 Commutative principle (addition): 93, 223-226 Associative principle (addition): 231-234 Use of parentheses (addition): 227-230	Commutative principle (addition) 51 Associative principle (addition) 73. 81. 142 Rearranging addends 143 Commutative principle (multiplication): 247-248. 252. 25 Zero and one principles for multiplication 252

pe and Sequence Chart for Elementary School Mathematics, K–6

KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3
paring sets 22 31 dinal number of a set 35–72 ching equivalent sets 26 equivalent sets 31-32 sets 49-50 53 Union of sets 47 54 63 pty set 43	Comparing sets 1-10 51 55 Equivalent sets 3-6 Cardinal number of a set 11-15 Empty set 35 Union of sets and addition 57-68 Subsets 73-76 Sets and subtraction 75-82 Sets of ten 154-155	Comparing sets 1 Sets of ten 7 Union of sets and addition equations 31 35 Sets and subtraction equations 39 43 45 Partitioning of sets 71-74 149 151 Multiplication and sets 247 253 Product sets 261 264	Sets numbers and numerals 1 Comparing sets 28 Multiplication and sets 84 Division and sets 136 154 254 Intersection of sets 156 Product sets 120 Fractions and sets 286
	Introducing ten 153 Grouping by tens 157 Pennies and dimes 179	2- and 3-digit numerals 7 30 155 3- and 4-digit numerals 179 199 Regrouping 223-224	2- and 3-digit numerals 2-8 3- and 4-digit numerals 9-13 5- and 6-digit numerals 14-18 In computation 54 68 73 208 224 234-236 241 273 275
	Addition and subtraction of whole numbers without regrouping 57-152 199-222 235-268 Inverse relation (+ and) 87-92 106 118 134 148 212 260	Addition and subtraction of whole numbers without regrouping 31-178 Addition and subtraction of whole numbers with regrouping 209-240 Inverse relation (+ and) 47-50 98	Inverse relation 20 26 144 Multiplication and division of whole numbers Chapters 4, 5, 8, 9
nting sequences 55, 65, 75, 77 ttern recognition 17-28	Counting and skip-counting sequences 44, 168–175, 271 Counting to 99 183	Counting sequences 13–14 16 22 26 30 181-184, 190 192 Order—smallest to largest 21 Skip-counting sequences 199 241-246	Counting sequences 4, 8, 18 Skip-counting sequences 106–114 Odd and even numbers 198
parison of sizes 1-5 re than and fewer than 21 more than 47 der of numbers zero through ten 65 75	One more than 9, 19, 21, 23, 27, 29 Introduction of greater than and less than 51-56, 186–191 In money problems 194	Greater than and less than 6, 17-20, 185–188 195 In story problems 197	Maintenance: 12, 67 Extended use for place value 19 Reasoning 239
merals 1 through 10 35–38 43 51 57, 61 67 71	Digits 11–15, 19–30/ Numeral writing, 39–43 Number line 49, 67, 81, 251 Symbols and , 55, + 59, 73, ¢, 123, ( ), 227 addition — vertical algorithm, 64 Two-digit numerals 159/ Expanded notation 241	Numeral writing 3 Addition and subtraction, vertical notation 53 66 79 Expanded notation 75 Roman numerals 137-138 Time 133-136 Symbols ( ), 71–74 81, 142, × 249–266 267, ¢ 131 fraction symbols 275–280	Addends and sums 24 Products and factors 92 Symbols –, 136, variable (n) 24, , 272, $, 78
itive introduction to addition 49 53 59 63 69 73 itive introduction to subtraction 79–80	Addition and subtraction facts, sums through 9 61–152 Sums of ten 199–218 Addition and subtraction facts sums through 18 243–264	Addition and subtraction facts sums of 10 or less 31-70 Sums of 10–18 81-130 Addition table 54 94 Missing addends 59 Multiplication facts introduction 247-266	Sums of 10–18 34 Multiplication facts 106–114 Division facts 148–156
	Addition equations 61–63 Frames ( ) 61 and following Subtraction equations 75–77	Addition equations 31 Subtraction equations 39 Parentheses in equations 71 Writing equations 109 Multiplication equations 249	Addition and subtraction equations 20, 28 Multiplication equations 87 Division equations 145
	Introduction in addition and subtraction 48, 67, 81, and following	Order 6/ Addition 33, 89 Subtraction 41, 107 Missing addends 60 90 Writing equations 109 Rearranging addends 146 Multiplication 254, 255	Addition and subtraction 22 Multiplication 88 Division 142
mmutative principle (intuitive)	Zero principle for addition 66 Commutative principle (addition) 83, 223–226 Associative principle (addition) 231–234 Use of parentheses (addition) 227–230	Commutative principle (addition) 51 Associative principle (addition) 73, 81, 142 Rearranging addends 143 Commutative principle (multiplication) 247-248, 252, 253 Zero and one principles for multiplication 252	Commutative principle (addition) 30 Associative principle (addition) 31/ Zero in division 148 Multiplicative identity 96/ Rearranging factors 101 Commutative principle (multiplication) 98 Associative principle (multiplication) 100 Distributive principle 102/ Rearranging addends 32

A Scope and Sequence Chart for Elementary School Mathema

TOPICS	KINDERGARTEN	GRADE 1	GRADE 2
Set Concepts	Comparing sets 22 31 Cardinal number of a set 35-72 Matching equivalent sets 26 Nonequivalent sets 31-32 Subsets 49-50 53 Union of sets 47 54 63 Empty set 43	Comparing sets 1-10 51 55 Equivalent sets 3-6 Cardinal number of a set 11-15 Empty set 35 Union of sets and addition 57-60 Subsets 73-76 Sets and subtraction 75-82 Sets of ten 154-155	Comparing sets 1 Sets of ten 7 Union of sets and addition equations 31 35 Sets and subtraction equations 39 43 45 Partitioning of sets 71 74 149 151 Multiplication and sets 247 253 Product sets 261 264
Place Value		Introducing ten 153 Grouping by tens 157 Pennies and dimes 179	2- and 3-digit numerals 7 30 155 3- and 4-digit numerals 179 199 Regrouping 223-224
Operations		Addition and subtraction of whole numbers without regrouping 57-152 199-222 235-268 Inverse relation (+ and) 87-92 104 118 134 148 212 260	Addition and subtraction of whole numbers without regrouping 31 178 Addition and subtraction of whole numbers with regrouping 209-240 Inverse relation (+ and) 47 50 98
Sequences	Counting sequences 55, 6?, 75, 77 Pattern recognition 17-20	Counting and skip-counting sequences 44 168-175 271 Counting to 99 183	Counting sequences 13-14 16 22 26 30 181-184 190 192 Order—smallest to largest 21 Skip-counting sequences 199 241-246
Inequalities	Comparison of sizes 1-5 More than and fewer than 21 One more than 47 Order of numbers zero through ten 65 75	One more than 9, 19, 21, 23, 27, 29 Introduction of greater than and less than 51-56, 186-191 In money problems 194	Greater than and less than 6, 17-20, 185-188, 195 In story problems 197
Notation	Numerals 1 through 10 35-38 43 51 57, 61 67 71	Digits 11-15, 19-30/ Numeral writing, 39-43 Number line 49, 67, 81, 251 Symbols and , 55, +, 59, , 73, ¢, 123; ( ), 227 addition — vertical, algorithm, 64 Two-digit numerals 159/ Expanded notation 241	Numeral writing 3 Addition and subtraction, vertical notation 53 66, 79 Expanded notation 75 Roman numerals 137-138 Time 133-136 Symbols ( ), 71-74 81 142, × 249-266 – 267, ¢ 13 fraction symbols 275-280
Number Facts	Intuitive introduction to addition 49 53 59 63 69 73 Intuitive introduction to subtraction 79-80	Addition and subtraction facts, sums through 9 61-152 Sums of ten 199-218 Addition and subtraction facts, sums through 18 243-264	Addition and subtraction facts, sums of 10 or less 31-70 Sums of 10-18 81-130 Addition table 54 94 Missing addends 59 Multiplication facts, introduction 247-266
Equations and Solutions		Addition equations 61-63 Frames ( ) 61, and following Subtraction equations 75-77	Addition equations 31 Subtraction equations 39 Parentheses in equations 71 Writing equations 109 Multiplication equations 249
Number Line		Introduction in addition and subtraction 48, 67, 81, and following	Order 6/ Addition 33 89 Subtraction 41, 107 Missing addends 60 90 Writing equations 109 Rearranging addends 146 Multiplication 254 255
Basic Principles	Commutative principle (intuitive) 79	Zero principle for addition 66 Commutative principle (addition): 93, 223-226 Associative principle (addition): 231-234 Use of parentheses (addition): 227-230	Commutative principle (addition) 51 Associative principle (addition) 73, 81, 142 Rearranging addends 143 Commutative principle (multiplication): 247-248, 252, 253 Zero and one principles for multiplication 252

70

pe and Sequence Chart for Elementary School Mathematics, K–6

KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3
aring sets 22 31 nal number of a set 35–72 ing equivalent sets 26 quivalent sets 31-32 ts 49–50 53 Union of sets 47 54 63 set 43	Comparing sets 1 10 51 55 Equivalent sets 3-6 Cardinal number of a set 11-15 Empty set 35 Union of sets and addition 57-68 Subsets 73-76 Sets and subtraction 75-82 Sets of ten 154-155	Comparing sets 1 Sets of ten 7 Union of sets and addition equations 31 35 Sets and subtraction equations 39 43 45 Partitioning of sets 71-74 149 151 Multiplication and sets 247 253 Product sets 261 264	Sets numbers and numerals 1 Comparing sets 28 Multiplication and sets 84 Division and sets 136 154 254 Intersection of sets 156 Product sets 120 Fractions and sets 286
	Introducing ten 153 Grouping by tens 157 Pennies and dimes 179	2- and 3-digit numerals 7 30 155 3- and 4-digit numerals 179-199 Regrouping 223-224	2- and 3-digit numerals 2-8 3- and 4-digit numerals 9-13 5- and 6-digit numerals 14-18 In computation 54 68 73 208 224 234-236 241 273 279
	Addition and subtraction of whole numbers without regrouping 57-152 199-222 235-268 Inverse relation (+ and) 87-92 106 118 134 148 212 268	Addition and subtraction of whole numbers without regrouping 31-178 Addition and subtraction of whole numbers with regrouping 209-240 Inverse relation (+ and) 47 50 98	Inverse relation 20 26 144 Multiplication and division of whole numbers Chapters 4, 5, 8, 9
ing sequences 55, 85 75, 77 n recognition 17-20	Counting and skip-counting sequences 44, 168–175 271 Counting to 99 18	Counting sequences 13–14 16 22 26 30 181–184, 190 192 Order—smallest to largest 21 Skip-counting sequences 199, 241–246	Counting sequences 4, 8, 10 Skip-counting sequences 106–114 Odd and even numbers 198
rison of sizes 1-5 than and fewer than 21 ore than 47 of numbers zero through ten 65 75	One more than 9, 19, 21, 23, 27, 29 Introduction of greater than and less than 51–56, 186–191 In money problems 194	Greater than and less than 6, 17–20, 185–188, 195 In story problems 197	Maintenance: 12, 67 Extended use for place value: 19 Reasoning: 239
rals 1 through 10 35–38 43 51 57, 67 71	Digits 11–15, 19–30/ Numeral writing, 39–43 Number line 49, 67, 81, 251 Symbols and . 55, + 59, . 73, ¢ 123, ( ), 227 addition — vertical, algorithm, 64 Two-digit numerals 159/ Expanded notation 241	Numeral writing 3 Addition and subtraction, vertical notation 53 66 79 Expanded notation 75 Roman numerals 137–138 Time 133–136 Symbols ( ), 71–74 81, 142, × 249–266 – 267, ¢, 131 fraction symbols 275–280	Addends and sums 24 Products and factors 92 Symbols – , 138, variable (n) 24, ⌐‾‾ , 272, $, 78
ve introduction to addition 49 53 59 69, 73 ve introduction to subtraction 79–80	Addition and subtraction facts, sums through 9 61–152 Sums of ten 199–218 Addition and subtraction facts, sums through 18 243–264	Addition and subtraction facts, sums of 10 or less 31-70 Sums of 10–18 81-130 Addition table 54 94 Missing addends 59 Multiplication facts, introduction 247-266	Sums of 10–18 34 Multiplication facts 106–114 Division facts 148–156
	Addition equations 61–63 Frames ( ) 61, and following Subtraction equations 75–77	Addition equations 31 Subtraction equations 39 Parentheses in equations 71 Writing equations 109 Multiplication equations 249	Addition and subtraction equations 20, 28 Multiplication equations 87 Division equations 145
	Introduction in addition and subtraction 48, 67, 81, and following	Order 6/ Addition 33 89 Subtraction 41 107 Missing addends 60 90 Writing equations 109 Rearranging addends 146 Multiplication 254 255	Addition and subtraction 22 Multiplication 88 Division 142
ative principle (intuitive)	Zero principle for addition 66 Commutative principle (addition) 93, 223–226 Associative principle (addition) 231–234 Use of parentheses (addition) 227–230	Commutative principle (addition) 51 Associative principle (addition) 73, 81, 142 Rearranging addends 143 Commutative principle (multiplication) 247–248, 252, 253 Zero and one principles for multiplication 252	Commutative principle (addition) 30 Associative principle (addition) 31/ Zero in division 148 Multiplicative identity 96/ Rearranging factors 101 Commutative principle (multiplication) 98 Associative principle (multiplication) 100 Distributive principle 102/ Rearranging addends 32

Processes (algorithms)			Addition without regrouping: 148, 176 3- and 4-digit sums: 201-208 Addition with regrouping: 211-215 Subtraction with regrouping: 225-228 Introduction to multiplication: 249 Introduction to division: 267
Rational Numbers		Introduction to fractions: 277-280	Extension of fraction concepts: 275-280
Ratio and Proportion			
Problem Solving	Simple oral problems: 44, 47, 48, 51, 57, 61, 67, 71	Money: 34, 123, 228, 257, 265 Oral problems: Teachers' Edition pages 106, 108, 136, 258, 301,	Money: 38, 123, 125, 127, 237 Addition: 53, 55, 154, 161, 163, 207, 217, 219 Subtraction: 55, 67, 113, 117, 171, 231, 233, 235 Multiplication: 258, 265
Logic	Patterns: 17-20	Informal logic in sequences of exercises used in teaching basic facts: 87-92, 118, 253, 261	Informal logic as applied in developing concepts of computation and problem solving: 53, 91, 105, 165, 185, 237
Number Theory		Odd and even numbers: 208 Skip counting: 271	Odd and even numbers: 241-242 Sums of odd and even numbers: 243-244 Skip counting: 245-246
Estimation			Introductory concepts as used in leading to regrouping: 209-211, 221-224
Measurement	Recognition of simple shapes: 7, 8	Concept of length: 281 Inches and centimeters: 281-284 Liquid—cups, pints, quarts, gallons: 285-286	Time: 133-136 Linear—inches, centimeters: 281-284 Liquid—cups, pints, quarts, gallons: 285-286
Geometry	Discriminating shapes: 7-8, 10, 12 Spatial relationships: 13-14 Geometrics throughout: 23-24, 29-30, and following	Throughout text: 2, 15, 18-24, 28-30, etc. Recognition of basic shapes: 24, 96, 109, 200 Number line: 49, 67, 81, 201, 211, 251 Measurement: 284 Geometric Experiences: 289-296	Number Line: 6, 33, 89, 100, 146, 241 Basic geometric shapes used throughout text 35, 84, 99, 150, 248, 276, 277-280 Geometric Experiences: 289-296
Graphs and Scale Drawings			Maps: 207 Charts: 257, 263, 264
Special Topics	Patterns and spatial relations: 13, 14-20	Telling time: 105-108	Telling time: 135-136 Roman numerals: 137-138

		Addition without regrouping: 148, 176 3- and 4-digit sums: 201–208 Addition with regrouping: 211–215 Subtraction with regrouping: 225–228 Introduction to multiplication: 249 Introduction to division: 267	Addition of two-digit numerals: 56 Subtraction of two-digit numerals: 60 Quotients and missing factors: 144 Two-digit factors: 222, 241/ Multiplying by ten: 210 Quotients with zero: 256/ Remainders in division: 278 Subtracting to find quotients: 262 Multiplication algorithm: 224
	Introduction to fractions: 277–280	Extension of fraction concepts: 275–280	Number pairs and fractions: 286 Equivalent fractions: 292
ple oral problems: 44, 47, 48, 51, 57, , 67, 71	Money: 34, 123, 220, 257, 285 Oral problems: Teachers' Edition pages 106, 108, 136, 256, 301.	Money: 38, 123, 125, 127, 237 Addition: 53, 55, 154, 161, 163, 207, 217, 219 Subtraction: 55, 67, 113, 117, 171, 231, 233, 235 Multiplication: 259, 265	Special topics (science, geography, etc.): 15, 64, 74, 75, 185, 215, 231 Short stories: 38, 53, 79, 118, 268 Miscellaneous problems (coins, inequalities, etc.): 56, 90–91, 117, 139, 157, 293
rns: 17–20	Informal logic in sequences of exercises used in teaching basic facts: 87–92, 118, 253, 261	Informal logic as applied in developing concepts of computation and problem solving: 53, 91, 105, 165, 185, 237	Informal logic as used in computation and problem solving: 71, 106–114
	Odd and even numbers: 208 Skip counting: 271	Odd and even numbers: 241–242 Sums of odd and even numbers: 243–244 Skip counting: 245–246	Odd and even numbers: 199, 200 Prime numbers: 204, 205 Multiples and factors: 201, 202
		Introductory concepts as used in leading to regrouping: 209–211, 221–224	Measurement, not exact: 174 Estimating area: 181 Estimating products: 238–239
ognition of simple shapes: 7, 8	Concept of length: 281 Inches and centimeters: 281–284 Liquid—cups, pints, quarts, gallons: 285–286	Time: 133–136 Linear—inches, centimeters: 281–284 Liquid—cups, pints, quarts, gallons: 285–286	Concepts: 164–167/ Linear: 168–177 Area: 178–181 Volume: 182–183 Liquid measure: 184–185 Time: 227
criminating shapes: 7–8, 10, 12 atial relationships: 13–14 ometrics throughout: 23–24, 29–30, and following	Throughout text: 2, 15, 18–24, 26–30, etc. Recognition of basic shapes: 24, 96, 109, 200 Number line: 49, 67, 81, 201, 211, 251 Measurement: 284 Geometric Experiences: 289–296	Number Line: 6, 33, 89, 100, 146, 241 Basic geometric shapes used throughout text: 35, 84, 99, 150, 248, 276, 277–280 Geometric Experiences: 289–296	Figures: 44/ Angles and triangles: 46 Quadrilaterals: 48 Polygons: 50/ Parallel lines: 128/ Parallelograms: 132 Right angles: 190/ Circles: 192/ Rectangles: 194 Coordinate geometry: 246, 252
		Maps: 207 Charts: 257, 263, 264	Reading a chart: 74 Coordinate geometry: 246, 252 Maps: 240, 261
terns and spatial relations: 13, 14–20	Telling time: 185–190	Telling time: 135–136 Roman numerals: 137–138	Mathematical Investigations: 319–326 Intuitive introduction to functions: 40, 41, 110, 153, 259 Graphing functions: 250

A Scope and Sequence Chart for Elementary School Mathemat

TOPICS	GRADE 4	GRADE 5	
Set Concepts	Sets numbers and numerals 1 Addition and sets 22 Multiplication and sets 72 Division and sets 73 96 Product sets 104-105 Sets of equivalent fractions 258 262 264 266 276	Solution sets 49 65 Union and intersection of sets 60 166 Sets of equivalent fractions 188 193 Sets of ordered pairs 38-39 307-312	Sets of numbers Fractions and set Sets of equivalent Sets of ordered p
Place Value	Numerals through trillions 2-20	Maintenance 47 Using an abacus 1 Reading and writing large numbers 7 Base ten and base four 10-13 Exponential notation 65 Decimal notation 256-260	Maintenance and Rounding 8, 229 Number bases oth
Operations	Multiplication and division of whole numbers extended Chapters 3, 5, 7, 8 Inverse relation 24, 76 Intuitive development of addition and subtraction of rational numbers 308	Addition and subtraction of rational numbers 226 261 Multiplication and division of rational numbers 290	Operation on rati Using decimal no Using percent not Integers 293-29
Sequences	Skip-counting sequences 14, 88-90 Numbers and patterns 45	Discovery-type sequences 34-37, 59 Rational-number sequences 209, 211, 238	Pattern sequence Rational-number Repeating decima
Inequalities	Maintenance 47, 60 Place-value comparison 8 Estimation and reasoning 156-167 Division algorithm development 214, 215, 220, 221 Fractions 304, 306, 312	Estimation 66, 121, 122, 124 Solution sets 132 Relations for rational numbers 212-215 Graphing on the number line 304-305	Relations for rati Comparing produc Decimals 221 Integers 298 Graphing 302
Notation	Symbol ≠, 270	Ancient number symbols 10, 15, 16 Variables—a, b, c, . . . 20, 25, 122 Symbols: f(n), 19; ∩, 81; °, 89; ∪, 166; ~, 166; decimal point, 256 Geometric symbols and names 78, 84 Names for rational numbers 208	Exponents 10-12 Geometric symbo Names for rationa Mixed numerals a Decimal notation: Negative numbers
Number Facts	Multiplication facts 83-85	Maintenance 27, 31, 49, 51, 53, 55, 57, 103, 106-108, 112-114	Maintenance: 20,
Equations and Solutions	All four operations 24, 34, 91, 138 Equations with fractions 310, 314, 315	Maintenance 24, 53, 56, 74, 248 Variables—a, b, c, . . . 24, 27 Solution sets 49, 65	Maintenance 24- Variables—a, b, c, Writing equations: Percents in equati Solution sets 29
Number Line	All four operations (whole numbers) 23, 25, 74-76 Number-line games 88-90 Fractions 292-297, 301, 308-312 Inequalities 304-307	Number-line games 34-37/ For estimation 67 Rational numbers 206, 209, 214, 242 Addition and subtraction of rational numbers 226, 230 Multiplication of rational numbers 292 Graphing 304, 305, 310	Maintenance 40, Addition and subtr Multiplication of r Number-line exerc Decimals 220/ l Graphing 302
Basic Principles	Commutative principle for addition 30 Associative principle for addition 31 Commutative principle for multiplication 79 Distributive principle 80, 168 Zero and one in multiplication 87 Zero and one in division 94	Addition and multiplication of whole numbers 46-47 Addition of rational numbers 246 Multiplication of rational numbers 294 Modular arithmetic 320	Addition and multi Addition of rationa Multiplication of r Operations (intege

e and Sequence Chart for Elementary School Mathematics, For Grades 4–6

	GRADE 4	GRADE 5	GRADE 6
	Sets numbers and numerals 1 Addition and sets 22 Multiplication and sets 72 Division and sets 73 96 Product sets 104-105 Sets of equivalent fractions 258 262 264 266 276	Solution sets 49 65 Union and intersection of sets 60 166 Sets of equivalent fractions 188 193 Sets of ordered pairs 38-39 307-312	Sets of numbers 86 Fractions and sets 125 Sets of equivalent fractions 127 Sets of ordered pairs 304 314
	Numerals through trillions 2-20	Maintenance 37 Using an abacus 1 Reading and writing large numbers 7 Base ten and base four 10-13 Exponential notation 65 Decimal notation 256-260	Maintenance and extension 1-13, 216-220 Rounding 8, 229 Number bases other than base ten 14-18
	Multiplication and division of whole numbers extended Chapters 3 5 7 8 Inverse relation 24 76 Intuitive development of addition and subtraction of rational numbers 308	Addition and subtraction of rational numbers 226 261 Multiplication and division of rational numbers 290	Operation on rational numbers extended 138-205 Using decimal notation 222-225, 230-241 244 Using percent notation 272-285 Integers 293-299
	Skip-counting sequences 14, 88-90 Numbers and patterns 45	Discovery-type sequences 34-37 59 Rational-number sequences 209 211 238	Pattern sequences 82, 184-187, 198 Rational-number sequences 175, 185, 198 Repeating decimal sequences 243
	Maintenance 47, 60 Place-value comparison 8 Estimation and reasoning 156-167 Division algorithm development 214 215 220 221 Fractions 304, 306 312	Estimation 66 121, 122 124 Solution sets 132 Relations for rational numbers 212-215 Graphing on the number line 304-305	Relations for rational numbers 46, 133 Comparing products and factors 196 Decimals 221 Integers 298 Graphing 302
	Symbol ≠, 270	Ancient number symbols 10, 15, 16 Variables—a, b, c, 20, 25, 122 Symbols: f(n), 19, ∩, 81, °, 89, ∪, 166, ~, 166, decimal point, 256 Geometric symbols and names 78, 84 Names for rational numbers 208	Exponents 10-12, 52/ Scientific notation 13 245 Geometric symbols 98 Names for rational numbers 131 Mixed numerals and improper fractions 148 Decimal notation 216/ Percent notation 272 253 Negative numbers 292/ Square root 298
s	Multiplication facts 83-85	Maintenance 27, 31 49 51 53, 55, 57, 103, 106-108, 112-114	Maintenance: 20, 24, 26
	All four operations 24, 34 91 138 Equations with fractions 310, 314, 315	Maintenance 24 53 56 74 248 Variables—a, b, c 24 27 Solution sets 49 65	Maintenance 24-27, 148 Variables—a, b, c, . . . 11, 52 Writing equations 28 Percents in equations 284-285 Solution sets 299
	All four operations (whole numbers) 23 25 74-76 Number-line games 88-90 Fractions 292-297 301, 308-312 Inequalities 304-307	Number-line games 34-37/ For estimation 67 Rational numbers 206 209, 214, 242 Addition and subtraction of rational numbers 226 230 Multiplication of rational numbers 292 Graphing 304 305 310	Maintenance 40, 42/ Rational numbers 130 134 Addition and subtraction of rational numbers 139 Multiplication of rational numbers 166 Number-line exercises 179 Decimals 220/ Integers 295 Graphing 302
es	Commutative principle for addition 30 Associative principle for addition 31 Commutative principle for multiplication 79 Distributive principle 80 168 Zero and one in multiplication 87 Zero and one in division 94	Addition and multiplication of whole numbers 46-47 Addition of rational numbers 246 Multiplication of rational numbers 294 Modular arithmetic 320	Addition and multiplication of whole numbers 32-33 Addition of rational numbers 150 Multiplication of rational numbers 16 , 176 Operations (integers) 293, 299

Processes (algorithms)	Addition 36-40/ Subtraction 49-52 Quotients and missing factors 92 Intuitive operations with functions 100/ Average 212 2- to 4-digit factors 170-184/ Products and factors 93 Quotients and remainders 202 / 2-digit divisors 225 Finding quotients by subtraction 204 Checking quotients 210/ 2- and 3-digit quotients 215	Addition and subtraction of whole numbers 102 Decimals 261-263 Multiplication of whole numbers 112, 114 Division of whole numbers 123 125, 129, 145 Operations with fractions 226-235 250, 296, 298 Computing with modular arithmetic 315-318	Maintenance: 4 Operations (frac 175, 176, 185 Operations (deci Integers 294, 2
Rational Numbers	Formal introduction to fractions 252, 260 Rational numbers as set of equivalent fractions 264-267, 276 / Greater than one 304, 311 Equality 298/ Inequality 304 Addition 308/ On the number line 312 In measurement 313	Fractions and rational numbers 176-185, 206, 208 Improper fractions 182/ Lowest terms fractions 197 Equivalent fractions 186-195 Inequalities 212, 215/ Multiplication and division 290-301 Fraction algorithms 226, 234, 240, 250, 290 Addition and subtraction 226/ Least common denominator 238/ Addition and subtraction of decimals 261	Rational number Equivalent fracti Equality of ratio Addition and su Least common d Mixed numerals Decimals 216/ Percent notation
Ratio and Proportion	Intuitive work with number pairs 252-254	Formal introduction to ratio and proportion: 218 In word problems 219	Maintenance and Equal ratios: 2 Geometry 210 Ratio and perce
Problem Solving	Map reading 177/ Estimation 164/ Averages: 213 Clock problems: 229, 271/ Weights: 102, 287 Rational-number problems 279, 315 Short stories 26, 77, 97, 180, 226 General interest: 27, 43, 54, 87, 99, 181, 223 Science topics 10, 20, 41, 50, 53, 59, 103, 187, 217, 231 Geography topics: 18, 175, 185, 189, 219, 289, 303, 317	Miscellaneous problems 42, 70, 72, 127, 139, 173, 201 Special topics (science, geography, etc.) 79, 110, 111, 131, 149, 157, 255 Short stories 118, 130, 216, 241, 251	Multiple operat General-interes 157, 287 Averages: 62/ Falling bodies: Interest: 282
Logic	Informal reasoning to solve problems: 33, 44, 61, 142	Simple work with implication: 49-57 Reasoning to solve problems: 58 Intuitive work with and/or: 60 Deduction: 60, 61 Negation: 60, 61	Maintenance:
Number Theory	Even and odd numbers: 232 Factors and products: 234 Common factors: 236 Greatest common factor 237 Prime numbers: 239	Odd and even numbers: 59/ Factors: 160 Prime numbers: 164/ Greatest common factor: [illegible] Least common multiple: 171/ Factor trees: 162 Modular arithmetic: 314-320 Applications to rational number algorithms: 200 Least common denominator: 238-240	Maintenance a Divisibility co Greatest comm Prime numbers Set union and Modular arithm
Estimation	Estimating length: 116/ Estimating perimeter: 124 Sums and differences: 158/ Products: 160 Quotients: 163, 200/ In word problems: 164-165 Multiples of ten: 200 Multiples of one hundred: 214	Word problems: 66, 70-73, 136 Time, weight, and distance: 70/ In measurement: 82, 93 To prepare for division: 122, 124, 132, 134, 142, 144 Fraction algorithms: 182, 183	Using inequalit In word proble To the nearest In decimal alg Rounding deci In measureme
Measurement	Length: 112-117, 129, 313/ Area: 112, 118-121, 174 Volume: 122-123, 179, 192/ Perimeter: 124-127 Liquid measure: 128 Converting units 130	Length: 82/Inches and centimeters: 83 Angle measure: 88-91 Perimeter of polygons: 96/ Area of rectangle: 98 Discovery of formulas: 98, 138/ With rational numbers: 220 Metric system: 268/ Area of triangles: 276 Volume: 282/ Surface area: 284	Length: 101/ Area of a recta Pythagorean t Indirect measu Circumference Area of a circle Surface area:
Geometry	Simple closed curves: 64-65/ Circles: 66-71, 148-155 Cubes: 192-195/ Triangular pyramids: 196 Cylinders and cones: 198 Coordinate geometry: 244-251	Sets of points: 76 Formal attention to abstract concepts: 76, 80 Definitions (plane and space): 77, 278/ Quadrilaterals: 95 Congruent segments: 80 Parallel and perpendicular lines: 94 Congruent triangles: 272-274/ Space figures: 278	Congruent seg Congruent ang Simple closed Pythagorean t Parallel and pe Illusions: 206/ Space geometr
Graphs and Scale Drawings	Maps 117, 289, 290 Charts 230, 317	Charts: 110, 111, 255 Bar and circle graphs: 110, 119, 159 Maps: 105, 219/ Ratio and scale drawings: 218 Recording temperature: 237/ Axes: 304, 311 Coordinate geometry: 304-313/ Graphing functions: 308 Graphing integers: 310	Maps: 41, 43/ Charts: 156, Scale drawing Graphs on the Coordinate ax
Special Topics	Intuitive work with functions: 28, 100, 240 Mathematical Investigations: 337-344	Functions: 19-23, 26 Modular arithmetic: 314-321 Mathematical Investigations: 339-346	Functions: 20, Other number Integers: 290- Mathematical

lgorithms)	Addition 36-40/ Subtraction 49-52 Quotients and missing factors 92 Intuitive operations with functions 100/ Average 212 2- to 4-digit factors 170-184/ Products and factors 93 Quotients and remainders 202 / 2-digit divisors 225 Finding quotients by subtraction 204 Checking quotients 210/ 2- and 3-digit quotients 215	Addition and subtraction of whole numbers 102 Decimals 261-263 Multiplication of whole numbers 112, 114 Division of whole numbers 123, 125, 129, 145 Operations with fractions 226-235, 250, 296, 298 Computing with modular arithmetic 315-318	Maintenance 40, 42, 46, 48, 56, 61, 66, 69 Operations (fraction notation): 140, 144, 152, 159, 171, 175, 176, 185, 188 Operations (decimal notation): 222, 232, 237, 239 Integers 294, 296, 299
mbers	Formal introduction to fractions 252, 268 Rational numbers as set of equivalent fractions 264-267, 276 / Greater than one 304, 311 Equality 298/ Inequality 304 Addition 308/ On the number line 312 in measurement 313	Fractions and rational numbers 176-185, 206, 208 Improper fractions 182/ Lowest terms fractions 197 Equivalent fractions 186-195 Inequalities 212, 215/ Multiplication and division 290-301 Fraction algorithms 226, 234, 240, 250, 290 Addition and subtraction 226/ Least common denominator 238/ Addition and subtraction of decimals 261	Rational numbers 130, 134, 158/ Reciprocals 174 Equivalent fractions 126/ Lowest terms fractions 128 Equality of rational numbers 132/ Multiplication 164 Addition and subtraction 141/ Fractions and regions 124 Least common denominator 142/ Repeating decimals 243 Mixed numerals and improper fractions 148/ Division 185 Decimals 216/ Decimal algorithms 222, 232, 233, 237 Percent notation 272, 274, 276
roportion	Intuitive work with number pairs 252-254	Formal introduction to ratio and proportion 218 In word problems 219	Maintenance and extension: 206-209 Equal ratios: 208 Geometry 210 Ratio and percent: 274
lving	Map reading 177/ Estimation 164/ Averages: 213 Clock problems 229, 271/ Weights 102, 287 Rational-number problems 279, 315 Short stories 26, 77, 97, 180, 226 General interest 27, 43, 54, 87, 99, 181, 223 Science topics 10, 20, 41, 50, 53, 59, 103, 187, 217, 231 Geography topics 18, 175, 185, 189, 219, 289, 303, 317	Miscellaneous problems 42, 70, 72, 127, 139, 173, 201 Special topics (science, geography, etc.) 79, 110, 111, 131, 149, 157, 255 Short stories 118, 130, 216, 241, 251	Multiple operations: 30 General-interest problems: 50, 53, 55, 83, 70, 147, 155, 157, 267 averages: 62/ Time, rate, distance: 74/ Density: 225 Falling bodies: 260/ Percent discount: 281 Interest 282
	Informal reasoning to solve problems: 33, 44, 61, 142	Simple work with implication: 49-57 Reasoning to solve problems: 58 Intuitive work with and/or: 60 Deduction: 60, 61 Negation: 80, 61	Maintenance: 49, 148, 221
eory	Even and odd numbers 232 Factors and products 234 Common factors 236 Greatest common factor 237 Prime numbers 239	Odd and even numbers: 59/ Factors: 160 Prime numbers: 164/ Greatest common factor 168 Least common multiple 171/ Factor trees 182 Modular arithmetic 314-320 Applications to rational number algorithms: 200 Least common denominator 238-240	Maintenance and extension: 80, 87, 142 Divisibility concepts: 82, 88/ Factor trees: 83 Greatest common factor: 87/ Least common multiple: 88 Prime numbers: 84/ Prime factorization: 85 Set union and intersection: 86 Modular arithmetic: 90
	Estimating length 116/ Estimating perimeter: 124 Sums and differences 158/ Products 180 Quotients 183, 200/ In word problems 184-185 Multiples of ten: 208 Multiples of one hundred: 214	Word problems: 68, 70-73, 136 Time, weight, and distance 70/ In measurement: 82, 99 To prepare for division 122, 124, 132, 134, 142, 144 Fraction algorithms: 182, 183	Using inequalities: 58, 196 In word problems: 147, 200, 201 To the nearest whole number: 198 In decimal algorithms: 221, 236 Rounding decimals: 229 In measurement: 253, 255
nt	Length 112-117, 129, 313/ Area 112, 119-121, 174 Volume 122-123, 179, 192/ Perimeter 124-127 Liquid measure 128 Converting units 130	Length: 82/inches and centimeters 83 Angle measure 86-91 Perimeter of polygons 96/ Area of rectangle 98 Discovery of formulas 98, 138/ With rational numbers:220 Metric system: 206/ Area of triangles 276 Volume: 282/ Surface area 284	Length: 101/ Angle measure: 104/ Perimeter: 107 Area of a rectangle: 108/ Area of a triangle: 113 Pythagorean theorem: 114 Indirect measurement using ratio: 210, 212 Circumference of a circle: 252/ π: 253 Area of a circle 254-255/ Volume: 262 Surface area: 264
	Simple closed curves 64-65/ Circles 66-71, 148-155 Cubes 192-195/ Triangular pyramids 196 Cylinders and cones 198 Coordinate geometry 244-251	Sets of points 76 Formal attention to abstract concepts: 76, 80 Definitions (plane and space) 77, 278/ Quadrilaterals 95 Congruent segments 80 Parallel and perpendicular lines 94 Congruent triangles 272-274/ Space figures 278	Congruent segments: 100/ Sets of points: 98 Congruent angles: 102/ Constructions: 103, 112 Simple closed curves: 106/ Congruent triangles: 110 Pythagorean theorem: 114/ Cross sections: 281 Parallel and perpendicular lines: 116 Illusions: 266/ Circles: 250, 252, 255 Space geometry 256/ Regular solids 258/ Cubes 258
ings	Maps 117, 289, 290 Charts 230, 317	Charts 110, 111, 255 Bar and circle graphs 110, 119, 159 Maps 105, 219/ Ratio and scale drawings 218 Recording temperature 237/ Axes 304, 311 Coordinate geometry 304-313/ Graphing functions 308 Graphing integers 310	Maps: 41, 43/ Bar and circle graphs: 70, 203, 208 Charts: 156, 225/ Pictograph 157/ Line graph 193 Scale drawings: 194 Graphs on the number line 302 Coordinate axes: 304-308
ics	Intuitive work with functions 28, 100, 240 Mathematical Investigations 337-344	Functions 19-23, 28 Modular arithmetic 314-321 Mathematical Investigations 339-346	Functions 20, 22, 26, 37, 154 Other number bases 14-18 Integers 290-299; Probability 312-321 Mathematical Investigations 340-347

STEP I Kindergarten

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Experiences in counting	*Our Kindergarten Days*, Page 93 *Aids in Teaching Arithmetic K-2*, pp. 1-10 *Arithmetic Kit A*, Continental Press *SRA Elementary Mathematics Program* Multi-Level Mathematics Program, Grades 1-6, K.I.S.D.	Flannel board Magnetic board Blocks Beads Toys Ice cream stic Buttons Spools
Developing number concepts (1-10)	*Our Kindergarten Days*, pp. 94-116 *Scope and Sequence of Elementary School Mathematics*, pp. 30-34 *Aids in Teaching Arithmetic K-2* Multilevel Mathematics Program, K.I.S.D.	Finger plays Puppets Nursery rhymes Peabody Kit Number cards o paper or glu
Concept of addition Use of concrete objects	*Our Kindergarten Days*	Books Chairs Blocks Crayons Candy Money
Concept of subtraction Use of concrete object	*Our Kindergarten Days*	Flannel board Magnetic board Small toys for individual d Checkers Cookies Cards Paper dolls

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Our Kindergarten Days, Page 93 Aids in Teaching Arithmetic K-2, pp. 1-10 Arithmetic Kit A, Continental Press SRA Elementary Mathematics Program Multi-Level Mathematics Program, Grades 1-6, K.I.S.D.	Flannel board Magnetic board Blocks Beads Toys Ice cream sticks Buttons Spools	over under inside on alike different pattern equivalent sets fewer fewest
Our Kindergarten Days, pp. 94-116 Scope and Sequence of Elementary School Mathematics, pp. 30-34 Aids in Teaching Arithmetic K-2 Multilevel Mathematics Program, K.I.S.D.	Finger plays Puppets Nursery rhymes Peabody Kit Number cards of sandpaper or glue	greater greatest least less lesser matching lines more most
Our Kindergarten Days	Books Chairs Blocks Crayons Candy Money	one more one-to-one matching rectangle set triangle empty set four
Our Kindergarten Days	Flannel board Magnetic board Small toys for individual desks Checkers Cookies Cards Paper dolls	numeral ring three two zero count eight five nine seven six ten

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Concept of ordinals Use of concrete objects	Our Kindergarten Days, page 117 Aids in Teaching Arithmetic, pp. 21-23	Peabody Kit Number cards t be put in or Children in li
Concept of space	Our Kindergarten Days, page 117	Books Pictures Boxes Tables Chairs Doors
Concept of comparison Use of concrete objects	Our Kindergarten Days, page 117 Frostig Program for Development of Visual Perception, Marianne Frostig	Balls of diffe sizes Children of di ent sizes Boxes Blocks
Concept of physical geometry Use of concrete objects	Our Kindergarten Days, page 117 Frostig Program for Development of Visual Perception, Marianne Frostig	Tin plates Flannel geomet figures Wooden geometr figures Ideal Form bo Developmental ing materia

78

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Our Kindergarten Days, page 117 Aids in Teaching Arithmetic, pp. 21-23	Peabody Kit Number cards to be put in order Children in lines	
Our Kindergarten Days, page 117	Books Pictures Boxes Tables Chairs Doors	
Our Kindergarten Days, page 117 Frostig Program for Development of Visual Perception, Marianne Frostig	Balls of different sizes Children of different sizes Boxes Blocks	
Our Kindergarten Days, page 117 Frostig Program for Development of Visual Perception, Marianne Frostig	Tin plates Flannel geometric figures Wooden geometric figures Ideal Form board Developmental learning materials	

STEP II: Grade 1

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
More or less	Elementary School Math. 1, Addison-Wesley (T.E.), pp. 14-24 Learning New Skills in Arithmetic SRA Elementary Mathematics Program Book 1 Individualized Math, Houghton Mifflin	Concrete object dominoes crayons checkers clocks toothpicks
Equivalent sets	Addison-Wesley, Elem. School Math 1 Learning New Skills in Arithmetic SRA Elementary Mathematics Program Book 1	Flannel board a cutouts Magnetic board Small toys
One-to-one correspondence	Addison-Wesley SRA Elementary Mathematics Program, Book I Arithmetic-Step by Step, Kit A, Continental Press Individualized Math	Blocks Poker chips Geometric cutou Flannel cutouts Flannel board Number rods
Ordinals through fourth	Addison-Wesley Individualized Math	Counting frame Money Candy Small toys Counting sticks Ordinal placeme from Teaching
Calendar	Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Keeping a daily Talks about tod day, tomorrow
Tallying	Addison-Wesley	Counting sticks Toothpicks Ice Cream stick
Time	Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Color-cued hand Tell-time Quizm Color-cued cloc Milton Bradley used to reinf

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math. 1, Addison-Wesley (T.E.), pp. 14-24 Learning New Skills in Arithmetic SRA Elementary Mathematics Program Book 1 Individualized Math, Houghton Mifflin	Concrete objects dominoes crayons checkers clocks toothpicks	more less one more
Addison-Wesley, Elem. School Math 1 Learning New Skills in Arithmetic SRA Elementary Mathematics Program Book 1	Flannel board and cutouts Magnetic board Small toys	set one-to-one matching the same number as equivalent sets greater
Addison-Wesley SRA Elementary Mathematics Program, Book I Arithmetic-Step by Step, Kit A, Continental Press Individualized Math	Blocks Poker chips Geometric cutouts Flannel cutouts Flannel board Number rods	
Addison-Wesley Individualized Math	Counting frame Money Candy Small toys Counting sticks Ordinal placement board from Teaching Resources	first second third fourth triangle square circle
Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Keeping a daily calendar Talks about today, yesterday, tomorrow	
Addison-Wesley	Counting sticks Toothpicks Ice Cream sticks	
Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Color-cued hands Tell-time Quizmo Color-cued clocks for ½ hr. Milton Bradley Game Bingo used to reinforce telling time	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Concept of cardinal number	Addison-Wesley, (T.E.), pp. 25-43 SRA Elementary Mathematics Program, Book 1	Blocks Crayons Pencils
Recognition of numerals 0-9	Addison-Wesley Working With Numbers, Book 1, Steck-Vaughn Individualized Math, Houghton Mifflin	Beaded numeral Tom-Tom (game number or ta Number line ta each desk
Order of the numerals 0-9	Addison-Wesley Switch-O-SRA (Teacher's Edition) Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Large display of cardboard Sandpaper nume Number line
Counting	Addison-Wesley Arithmetic, Step by Step, Kit A, Continental Press	Tape recorder Counting stude chairs, etc. Records to cou
Number names	Addison-Wesley	Flash cards Elmer's glue n cards Mimeographed s practice
Recognition of sets-patterns	Addison-Wesley Book K-1, Steck Vaughn	Dominoes Flannel board Flannel cutout Flash cards li

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
r	Addison-Wesley, (T.E.), pp. 25-43 SRA Elementary Mathematics Program, Book 1	Blocks Crayons Pencils	
	Addison-Wesley Working With Numbers, Book 1, Steck-Vaughn Individualized Math, Houghton Mifflin	Beaded numerals Tom-Tom (game count number or taps) Number line taped on each desk	
	Addison-Wesley Switch-O-SRA (Teacher's Edition) Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Large display numerals of cardboard Sandpaper numerals Number line	
	Addison-Wesley Arithmetic, Step by Step, Kit A, Continental Press	Tape recorder Counting student's desks, chairs, etc. Records to count to	
	Addison-Wesley	Flash cards Elmer's glue number name cards Mimeographed sheets for practice	
rns	Addison-Wesley . Book K-1, Steck Vaughn	Dominoes Flannel board Flannel cutouts Flash cards like dominoes	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Calendar	Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Day-by-day cale for class Individual cale
Ordinals through ninth	Elementary School Math 1, Addison-Wesley	Flannel Board a materials Ordinal placeme
Tallying	Elementary School Math 1, Addison-Wesley	Ice cream stick Counting sticks Bottle caps Ordinal placeme

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 1, Addison-Wesley *Arithmetic-Step by Step, Kit A*, Continental Press	Day-by-day calendar for class Individual calendars	month week Monday Tuesday Wednesday
Elementary School Math 1, Addison-Wesley	Flannel Board and materials Ordinal placement board	Thursday Friday sequence Saturday
Elementary School Math 1, Addison-Wesley	Ice cream sticks Counting sticks Bottle caps Ordinal placement board	tally

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Time: By the hour	Addison-Wesley Arithmetic-Step by Step, Kit A Continental Press	Individual cl Quizmo-Tell T Stencils of c
Writing of the numerals 0-9	Addison-Wesley Switch-O-SRA (Teacher's Edition), page 71	Block patter Scrambling nu putting ca order, the
Grouping by tens and fives	Addison-Wesley Aids in Teaching Arithmetic K-2	Counting stic Toothpicks Ice Cream st Pennies, dim
Meaning of two-digit numerals	Addison-Wesley	Place value Counting fra Flip and bui
Counting and order through 99	Addison-Wesley Aids in Teaching Arithmetic K-2 Arithmetic, Step by Step, Kit A, Continental Press	100 chart nu Number line Records coun Dot-to-dot p 1-100
Skip counting	Addison-Wesley	Color-cue od numerals Allowing pupi along numb the floor Flash cards-- even numera
Concept of inequalities Symbols for equalities Inequalities stressing place value	Addison-Wesley	Sets of conc Sandpaper sym

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Addison-Wesley Arithmetic-Step by Step, Kit A Continental Press	Individual clocks Quizmo-Tell Time Stencils of clocks	o'clock
Addison-Wesley Switch-O-SRA (Teacher's Edition), page 71	Block patterns Scrambling numerals, putting cards in order, then writing	
Addison-Wesley Aids in Teaching Arithmetic K-2	Counting sticks Toothpicks Ice Cream sticks Pennies, dimes, nickels	
Addison-Wesley	Place value charts Counting frames Flip and build cards	digit place value
Addison-Wesley Aids in Teaching Arithmetic K-2 Arithmetic, Step by Step, Kit A, Continental Press	100 chart numeral cards Number line Records counting to 100 Dot-to-dot pictures 1-100	
Addison-Wesley	Color-cue odd and even numerals Allowing pupils to jump along number line on the floor Flash cards--odd and even numerals	skip-counting ten twenty thirty forty fifty sixty seventy eighty ninety penny nickel dime greater than less than
Addison-Wesley	Sets of concrete objects Sandpaper symbols	

STEP III Grade 1[1]

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Union of sets	Elementary School Math 1, Addison-Wesley Teacher's Edition) pp. 85-157	Blocks Marbles Checkers Flannel board
Concept of addition	Addison-Wesley, Elem. School Math 1 Arithmetic-Step, Kit A, Continental Press Book 1, Steck-Vaughn	Flannel board materials Number rod Using fingers Magnetic board materials
Addition equations and solutions through 5: Written Oral Horizontal Vertical	Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program Book 1 Arithmetic--Step by Step, Kit A, Continental Press Scope and Sequence of Elementary Mathematics, p. 43 Individualized Math., Houghton-Mifflin Addition, Multimedia Learning Lab	Chalk board ex Making paper c (idea of one Number line Addition flash Records
Subsets	Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program, Book 1	Many individua for children . Flannel board
Concept of subtraction	Elementary School Math 1, Addison-Wesley Book 1, Steck-Vaughn Arithmetic-Step by Step, Kit A, Continental Press	Candy Money Blocks Small toys Using fingers
Subtraction equations with sum of 5: Written Oral	Elementary School Math 1, Addison-Wesley Book 1, Steck-Vaughn SRA Elementary Mathematics Program, Book 1 Subtraction, Multimedia Learning Lab	Blocks Small toys Flannel board outs

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 1, Addison-Wesley Teacher's Edition) pp. 85-157	Blocks Marbles Checkers Flannel board and cutouts	
Addison-Wesley, Elem. School Math 1 Arithmetic-Step, Kit A, Continental Press Book 1, Steck-Vaughn	Flannel board and materials Number rod Using fingers Magnetic board and materials	add addition combination
Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program Book 1 Arithmetic--Step by Step, Kit A, Continental Press Scope and Sequence of Elementary Mathematics, p. 43 Individualized Math., Houghton-Mifflin Addition, Multimedia Learning Lab	Chalk board exercises Making paper chains (idea of one more) Number line Addition flash cards Records	equals equation solve sum table
Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program, Book 1	Many individual sets for children Flannel board and cutouts	
Elementary School Math 1, Addison-Wesley Book 1, Steck-Vaughn Arithmetic-Step by Step, Kit A, Continental Press	Candy Money Blocks Small toys Using fingers	difference minus subtract take away
Elementary School Math 1, Addison-Wesley Book 1, Steck-Vaughn SRA Elementary Mathematics Program, Book 1 Subtraction, Multimedia Learning Lab	Blocks Small toys Flannel board and cutouts	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
	Arithmetic-Step by Step, Kit A, Continental Press	Magnetic board Subtraction fl Taped speed tes "Dial the Facts subtraction
Inverse relationship between addition and subtraction	Elementary School Math 1, Addison-Wesley Aids in Teaching Arithmetic K-2	Flash cards li Flannel board
Sets and subsets	Addison-Wesley, Elementary School Math - 1	Many individual each child Concrete object
Sums through 10: Oral Written	Addison-Wesley, Elem. School Math 1 Book 1, Steck-Vaughn Arithmetic-Step by Step, Kit A, Continental Press SRA Elementary Mathematics Program, Book 1	Records Speed test can or oral Counting frame Flannel board Flash cards "Dial the Facts for addition
Reasoning and deduction (reading story problems)	Addison-Wesley, Elementary School Math 1	Pictures Flannel board
Skills and maintenance: Time	Elementary School Math 1, Addison-Wesley Aids in Teaching Arithmetic K-2 Arithmetic-Step by Step, Kit A, Continental Press SRA Elementary Mathematics Program, Book 1	Concrete object mentioned pr with skills Playing games

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Arithmetic-Step by Step, Kit A, Continental Press	Magnetic board Subtraction flash cards Taped speed test "Dial the Facts" Wheel for subtraction	
Elementary School Math 1, Addison-Wesley Aids in Teaching Arithmetic K-2	Flash cards like dominoes Flannel board and utouts	
Addison-Wesley, Elementary School Math - 1	Many individual sets for each child Concrete objects	
Addison-Wesley, Elem. School Math 1 Book 1, Steck-Vaughn Arithmetic-Step by Step, Kit A, Continental Press SRA Elementary Mathematics Program, Book 1	Records Speed test can be taped or oral Counting frame Flannel board materials Flash cards "Dial the Facts" wheel for addition	
Addison-Wesley, Elementary School Math 1	Pictures Flannel board and materials	
Elementary School Math 1, Addison-Wesley Aids in Teaching Arithmetic K-2 Arithmetic-Step by Step, Kit A, Continental Press SRA Elementary Mathematics Program, Book 1	Concrete objects as mentioned previously with skills Playing games	

STEP IV GRADE 1^2

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Principal of addition in horizontal and vertical notion	Elementary School Math 1, Addison-Wesley (Teacher's Edition), pp. 159-207 Book 1, Steck-Vaughn Scope and Sequence of Elementary School Mathematics, pp. 47-50 Addition, Multimedia Learning Lab	Flash cards ho and vertical Board work hor and vertical Transparencies
Use of parentheses: Commutative Associative	Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program, Book 1	Flannel board als Chalkboard
Understanding additon of 3 numbers	Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program, Book 1 Arithmetic-Step by Step, Kit A, Continental Press	Individual sets children to their desks
Introducing sums 11 through 18	Elementary School Math 1, Addison-Wesley Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Ice cream stick Toothpicks Paper clips Peanuts
Oral word problems	Elementary School Math 1, Addison-Wesley	Pictures Flannel board material
Subtraction combinations associated with sums 11-18	Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press SRA Elementary Mathematics Program, Book 1	Flannel board materials Counting sticks Counting frames

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Elementary School Math 1, Addison-Wesley (Teacher's Edition), pp. 159-207 Book 1, Steck-Vaughn Scope and Sequence of Elementary School Mathematics, pp. 47-50 Addition, Multimedia Learning Lab	Flash cards horizontal and vertical Board work horizontal and vertical Transparencies	
	Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program, Book 1	Flannel board and materials Chalkboard	grouping principal order principal commutative associative
	Elementary School Math 1, Addison-Wesley SRA Elementary Mathematics Program, Book 1 Arithmetic-Step by Step, Kit A, Continental Press	Individual sets for children to have on their desks	
h 18	Elementary School Math 1, Addison-Wesley Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Ice cream sticks Toothpicks Paper clips Peanuts	
	Elementary School Math 1, Addison-Wesley	Pictures Flannel board and material	
	Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press SRA Elementary Mathematics Program, Book 1	Flannel board and materials Counting sticks Counting frames	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Number lines	Elementary School Math 1, Addison-Wesley	Individual nu on desk Number line o to be used scotch
Telling time by half-hour: Hours earlier Hours later	Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Individual cl Color-cued fo Quizmo-Tell T Milton Brad
Calendar Extending on previous experiences	Elementary School Math 1, Addison-Wesley	Class daily c Individual ca
Maintenance of skills	Elementary School Math 1, Addison Wesley Working with Numbers, Book 2, The Steck Co.	Games of all k to reinforce
Recognition of coins and their value: Counting change	Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press U.S. Money--Levels I-III, Continental Press	Real money Play money Matching coins A country stor
Basic ideas of fractional numbers	Elementary School Math 1, Addison-Wesley Book 2, Steck-Vaughn	Objects that c Milton Bradley Are As Easy Fraction cards Flannel board Lessons with r oranges, san

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 1, Addison-Wesley	Individual number lines on desk Number line on floor, to be used like hopscotch	
Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Individual clocks Color-cued for half-hour Quizmo-Tell Time, Milton Bradley	earlier later
Elementary School Math 1, Addison-Wesley	Class daily calendar Individual calendars	
Elementary School Math 1, Addison Wesley Working with Numbers, Book 2, The Steck Co.	Games of all kinds to reinforce skills	
Elementary School Math 1, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press U.S. Money--Levels I-III, Continental Press	Real money Play money Matching coins A country store	cent change collection
Elementary School Math 1, Addison-Wesley Book 2, Steck-Vaughn	Objects that can be cut Milton Bradley-"Fractions Are As Easy As Pie" Fraction cards in color Flannel board and materials Lessons with real apples, oranges, sandwiches, etc.	divide

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Concept of length	Elementary School Math 1, Addison-Wesley	Primary ruler Yard stick Tape measure
Simple linear measurement	Elementary School Math 1, Addison-Wesley	Cup Quart bottle ½ pint carton Pint carton ½gallon carton Gallon carton Continental Pr Materials--M I-III

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 1, *Addison-Wesley*	Primary ruler Yard stick Tape measure	divide foot half yard inch
Elementary School Math 1, *Addison-Wesley*	Cup Quart bottle ½ pint carton Pint carton ½gallon carton Gallon carton Continental Press Materials--Measurement I-III	linear cup pint quart

STEP V Grade 2

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Understanding equivalent sets	Elementary School Math 2 Book 2, Addison-Wesley, pp. 13-70 Scope and Sequence of Elementary School Mathematics, pp. 52-54 Match Sets, Bingo, Singer, SVE	Flannel board a Concrete object children to h their desks
Understanding place value of two-digit numbers	Addison-Wesley, 2 Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Ice cream stick Counting sticks Matches Rubber bands Ordinal placeme Pocket chart Overhead projec
Reading numeral names 0-9	Addison-Wesley, 2	Chalkboard Dittos Matching Teacher-made pu
Counting past 100	Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press	Counting frame Records Tape recorder Number line
Concept of inequalities: Symbols of inequalities	Addison-Wesley, 2	Sandpaper symbo Flannel board a Magnetic board
Place value for three- and four-digit numbers	Addison-Wesley, 2 Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Pocket chart Ice cream stick Counting sticks Rubber bands Counting frame

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
sets	Elementary School Math 2 Book 2, Addison-Wesley, pp. 13-70 Scope and Sequence of Elementary School Mathematics, pp. 52-54 Match Sets, Bingo, Singer, SVE	Flannel board and cutouts Concrete objects for children to have on their desks	equivalent sets
	Addison-Wesley, 2 Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Ice cream sticks Counting sticks Matches Rubber bands Ordinal placement board Pocket chart Overhead projector	numerals ones tens rows columns
	Addison-Wesley, 2	Chalkboard Dittos Matching Teacher-made puzzles	
	Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press	Counting frame Records Tape recorder Number line	
	Addison-Wesley, 2	Sandpaper symbols Flannel board and cutouts Magnetic board symbols	greater than less than
d	Addison-Wesley, 2 Aids in Teaching Arithmetic K-2 Individualized Math, Houghton Mifflin	Pocket chart Ice cream sticks Counting sticks Rubber bands Counting frame	hundreds thousands skip-counting

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Union of sets	Addison-Wesley , 2	Concrete sets children to desks Flannel board Magnetic board
Subsets	Addison-Wesley , 2 SRA Elementary Mathematics Program, Book 2	Sets for child use at their Flannel board
To reinforce concept of addition	Addison-Wesley , 2 Arithmetic-Step by Step, Kit A, Continental Press	Checkers Toothpicks in Peanuts Concrete objec
To reinforce concept of subtraction	Individualized Math, Houghton Mifflin Math Drill Kit Singer, SVE Addison-Wesley , 2 Arithmetic-Step by Step, Kit A, Continental Press	Counting frame Counting stick Macaroni Popcorn Ezicounts Concrete objec
Solutions to equations (missing addends)	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Pencils Crayons Flannel board Concrete objec
Inverse relation between addition and subtraction	Addison-Wesley, 2	Concrete objec children to Flannel board Magnetic board
Number line	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, pp. 55-56	Ruler Yardstick Number line

100

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Addison-Wesley, 2	Concrete sets for children to have at desks Flannel board and cutouts Magnetic board and objects	
Addison-Wesley, 2 *SRA Elementary Mathematics Program, Book 2*	Sets for children to use at their desks Flannel board and cutouts	
Addison-Wesley, 2 *Arithmetic-Step by Step, Kit A*, Continental Press	Checkers Toothpicks in clay Peanuts Concrete objects	addition equals equation plus
Individualized Math, Houghton Mifflin *Math Drill Kit* Singer, SVE *Addison-Wesley*, 2 *Arithmetic-Step by Step, Kit A*, Continental Press	Counting frame Counting sticks Macaroni Popcorn Ezicounts Concrete objects	minue from subtraction
Addison-Wesley, 2 *SRA Elementary Mathematics Program, Book 2*	Pencils Crayons Flannel board and cutouts Concrete objects	
Addison-Wesley, 2	Concrete objects for children to handle Flannel board and cutouts Magnetic board	
Addison-Wesley, 2 *Scope and Sequence of Elementary School Mathematics*, pp. 55-56	Ruler Yardstick Number line	number line

101

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Time: Calendars Clocks	Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press	Day-by-day ca Individual cl Continental P Time I-III
Addition table	Addison-Wesley, 2 SRA Elementary Mathematics Program Book 2	Teacher-made Continental P Number conc
Word problems	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Teacher-made Concrete ob work
Master addition and subtraction Facts 0-10	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2 Arithmetic-Step by Step, Kit A, Continental Press Math Drill Kit, Singer, SVE	Drill by flas records, ta Math team gam spelling be Math Tic-TAc- Math Quizmo
Commutative or order Principles of addition	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, pp. 57-58	Objects for s demonstrati Chalkboard dr explanation
Associative or grouping Principle, parenthesis usage	Addison-Wesley, 2	Flannel board Objects for s demonstrati Overhead proj
Additive property of zero	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Counting fram Flannel board Concrete obje student use

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press	Day-by-day calendar Individual clocks Continental Press Time I-III	
	Addison-Wesley, 2 SRA Elementary Mathematics Program Book 2	Teacher-made stencils Continental Press Number concepts I-III	addend additional
	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Teacher-made stencils Concrete objects to work	
action	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2 Arithmetic-Step by Step, Kit A, Continental Press Math Drill Kit, Singer, SVE	Drill by flashcards, records, tapes Math team game, like spelling bee Math Tic-TAc-Toe Math Quizmo	
	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, pp. 57-58	Objects for set demonstrations Chalkboard drill and explanations	
	Addison-Wesley, 2	Flannel board and cutouts Objects for set demonstration Overhead projector	grouping principles order principles parenthesis
	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Counting frame Flannel board and cutouts Concrete objects for student use	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Roman numerals: I through XII	Elementary School Math 3, Addison-Wesley Scope and Sequence of Elementary School Mathematics, pp. 57-58	Teacher-made ch and dittos Roman numeral c on board

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 3, Addison-Wesley Scope and Sequence of Elementary School Mathematics, pp. 57-58	Teacher-made charts and dittos Roman numeral chart on board	Arabic numerals Roman numerals

STEP VI: Grade 2[2]

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Maintenance of skills and understandings	*Elementary School Math 2*, Addison-Wesley *Scope and Sequence of Elementary School Mathematics*, p. 59	Chalkboard Records Tape recorder Teacher-made d
Developing addition combinations for sums from 11 through 18 through the use of the grouping principle	Addison-Wesley, 2 *Arithmetic-Step by Step, Kit A*, Continental Press	Counting beads Counting frame Counting block Flannel board
Building skills for combinations of 11-18	*Elementary School Math 2*, Addison-Wesley *SRA Elementary Mathematics Program, Book 2* *Arithmetic-Step by Step, Kit A*, Continental Press *Addition*, Multimedia Learning Lab	Arithmetic Qui Extensive use materials Films and film
Subtraction skills associated with sums 11-18	*Elementary School Math 2*, Addison-Wesley *SRA Elementary Mathematics Program, Book 2* *Arithmetic-Step by Step, Kit A*, Continental Press *Math Drill Kit, AA*, Singer SVE *Subtraction*, Multimedia Learning Lab	Counting frame Counting beads Counting block Objects for in child's use
Inverse relation between addition and subtraction	*Elementary School Math 2*, Addison-Wesley *Scope and Sequence of Elementary School Mathematics*, Page 60	Chalkboard Set materials Teacher-made m sheets Flash cards Flannel board Number line Arithmetic Qui Counting frame Films and film

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Elementary School Math 2, Addison-Wesley Scope and Sequence of Elementary School Mathematics, p. 59	Chalkboard Records Tape recorder Teacher-made dittos	
nations h 18	Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press	Counting beads Counting frame Counting blocks Flannel board and cutouts	
nations	Elementary School Math 2, Addison-Wesley SRA Elementary Mathematics Program, Book 2 Arithmetic-Step by Step, Kit A, Continental Press Addition, Multimedia Learning Lab	Arithmetic Quizmo Extensive use of set materials Films and filmstrips	
ated	Elementary School Math 2. Addison-Wesley SRA Elementary Mathematics Program, Book 2 Arithmetic-Step by Step, Kit A, Continental Press Math Drill Kit, AA, Singer SVE Subtraction, Multimedia Learning Lab	Counting frame Counting beads Counting blocks Objects for individual child's use	
n	Elementary School Math 2, Addison-Wesley Scope and Sequence of Elementary School Mathematics, Page 60	Chalkboard Set materials Teacher-made mimeographed sheets Flash cards Flannel board Number line Arithmetic Quizmo Counting frame Films and filmstrips	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Word problems: Extension of skills for addition and subtraction	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Oral work Tape record pr Films
Reviewing commutative and associative principles	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, page 62	Use of chalkbo Teacher-made m sheets
Rearranging addends	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, page 62	Chalkboard exe Number lines Games
Applications of the commutative and associative principles	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Counting frame Objects easily by tens
Addition of two-digit numbers (without carrying)	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2 Acquiring Arithmetic Skills, McGraw-Hill	Objects easily by tens Counting frame
Subtraction of two-digit numbers (without borrowing)	Addison-Wesley, 2 Acquiring Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 2	Flannel board Magnetic board
Inverse relation between additon and subtraction of two-digit numbers	Addison-Wesley, 2	Objects for se

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Oral work Tape record problems Films	
	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, page 62	Use of chalkboard primarily Teacher-made mimeographed sheets	
	Addison-Wesley, 2 Scope and Sequence of Elementary School Mathematics, page 62	Chalkboard exercises Number lines Games	
	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Counting frame Objects easily grouped by tens	
ers	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2 Acquiring Arithmetic Skills, McGraw-Hill	Objects easily grouped by tens Counting frame	
ng)	Addison-Wesley, 2 Acquiring Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 2	Flannel board and cutouts Magnetic board and objects	
	Addison-Wesley, 2	Objects for set demonstration	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Word problems involving two=digit numbers	*Addison-Wesley*, 2	Teacher-made di
Place value (use of expanded notation)	*Addison-Wesley*, 2 *SRA Elementary Mathematics Program, Book 2*	Column addition Number line Dart board and darts Road maps
Differences of three- and four-digit numbers: Sums of three- and four-digit numbers	*Addison-Wesley*, 2 *Book 2*, Steck-Vaughn	Place Value cha Number line

Additional Materials: *Individualized Math*,
Scholastic Book Service,
Math Applications, S.R.A.

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Addison-Wesley, 2	Teacher-made dittos	
on)	Addison-Wesley, 2 SRA Elementary Mathematics Program, Book 2	Column addition Number line Dart board and rubber darts Road maps	
ur-	Addison-Wesley, 2 Book 2, Steck-Vaughn	Place Value chart Number line	

ividualized Math,
olastic Book Service,
h Applications, S.R.A.

STEP VII GRADE 2^3

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Addition: Two-digit numbers with carrying	Elementary School Math 2, Addison-Wesley Scope and Sequence of Elementary School Mathematics page 67 SRA Elementary Mathematics Program, Book 2 Acquiring Arithmetic Skills, McGraw-Hill Addition, Multimedia Learning Lab	Objects easil by tens to b set demonstr Counting stick Toothpicks Ice Cream stic Matches
Subtraction: Two-digit numbers with borrowing	Addison-Wesley, 2 Acquiring Arithmetic Skills, McGraw-Hill Subtraction, Multimedia Learning Lab Math Drill Kit, AA, Singer SVE	Chalk board Objects easil by tens to b students
Word Problems: Addition and subtraction Two-digit numbers requiring regrouping	Addison-Wesley, 2	Objects readil by tens
Time: Clocks Calendars (maintain previously developed concepts and skills)	Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press.	Same as previ mentioned
Even and odd numbers	Elementary School Math 2, Addison-Wesley Scope and Sequence of Elementary School Mathematics, page 68 Book 2, Steck-Vaughn	Number line Color-cued n Rows of child Rows of windo
Sequence and skip counting by 5's, 2's, 10's	Elementary School Math 2, Addison-Wesley Book 2, Steck-Vaughn SRA Elementary Mathematics Program, Book 2	Number lines Record Tapes Hopscotch typ

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 2, Addison-Wesley Scope and Sequence of Elementary School Mathematics page 67 SRA Elementary Mathematics Program, Book 2 Acquiring Arithmetic Skills, McGraw-Hill Addition, Multimedia Learning Lab	Objects easily grouped by tens to be used in set demonstrations Counting sticks Toothpicks Ice Cream sticks Matches	carrying
Addison-Wesley, 2 Acquiring Arithmetic Skills, McGraw-Hill Subtraction, Multimedia Learning Lab Math Drill Kit, AA, Singer SVE	Chalk board Objects easily grouped by tens to be used by students	borrowing
Addison-Wesley, 2	Objects readily grouped by tens	digit
Addison-Wesley, 2 Arithmetic-Step by Step, Kit A, Continental Press.	Same as previously mentioned	
Elementary School Math 2, Addison-Wesley Scope and Sequence of Elementary School Mathematics, page 68 Book 2, Steck-Vaughn	Number line Color-cued numbers Rows of children Rows of window panes	even number odd number
Elementary School Math 2, Addison-Wesley Book 2, Steck-Vaughn SRA Elementary Mathematics Program, Book 2	Number lines Record Tapes Hopscotch type of game	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Groups of equivalent sets	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 2 Acquiring Arithmetic Skills, McGraw-Hill	Objects for se demonstratio Objects for in child groupi Number line
Product sets: Products through 9 x 9	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Books 2 and 3 Aids in Teaching Arithmetic K-2	Flannel board Timetable char ally made Records (drill Dial the Facts Foresman
Multiplicative properties of zero and one	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3	Objects for se demonstratio Objects for in child groupi Records Films
Working with coins: Making change Decimal notation for dollars and cents Word problems with money	Elementary School Math 3, Addison-Wesley Acquiring Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 2 Books 2 and 3, Steck-Vaughn	Play money Real money Country store
Fractions $\frac{1}{2},\frac{1}{4},\frac{1}{3},\frac{1}{5},\frac{2}{3},\frac{3}{4}$	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 2	Objects that ca cut or divide groups, such candy or pape

114

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 2 Acquiring Arithmetic Skills, McGraw-Hill	Objects for set demonstration Objects for individual child grouping Number line	
Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Books 2 and 3 Aids in Teaching Arithmetic K-2	Flannel board and cutouts Timetable chart individually made Records (drill) Dial the Facts, Scott, Foresman	multiplication product times
Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3	Objects for set demonstration Objects for individual child grouping Records Films	
Elementary School Math 3, Addison-Wesley Acquiring Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 2 Books 2 and 3, Steck-Vaughn	Play money Real money Country store	penny cent dime dollar half-dollar nickel quarter
Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 2	Objects that can be cut or divided into groups, such as real candy or paper circle	fifth fourth third

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Linear measurement Inches and centimeters	Elementary School Math 3, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Rulers Yardsticks Tape measure
Liquid measure	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3	Carton or cont to demonstra quarts, cups
To extend knowledge of Roman numerals	Elementary School Math 3, Addison-Wesley	A clock with R numerals Teacher-made d and material

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 3, Addison-Wesley Arithmetic-Step by Step, Kit A, Continental Press	Rulers Yardsticks Tape measure	inch scale centimeter length measure
Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3	Carton or containers to demonstrate pints, quarts, cups, gallons	measurement cup gallon quart pint
Elementary School Math 3, Addison-Wesley	A clock with Roman numerals Teacher-made dittos and materials	Roman numerals meter

STEP VIII Grade Level 3^1

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Length	Elementary School Math, Book 3, Addison-Wesley, (Teachers's Edition), pp. 17-155 Scope and Sequence of Elementary School Mathematics, pp. 73-75 SRA Elementary Mathematics Program, Book 3	Ruler Yardsticks Tape
Area	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Cubes Floor tiles Pieces of car
Volume	Addison-WEsley, 3 SRA Elementary Mathematics Program, Book 3	Cup container Pint containe Quart contain Gallon contai Cubes
Two-, three-, and four-digit numbers: Inequalities Word problems	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Lollipop stic Ice cream sti Toothpicks Matches
Number names twenty to one hundred	Addison-Wesley, 3	Matching game Spelling test Teacher-made
Geometry Lesson 1: Circle and points	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Colonial Filmstrips Series Arithmetic-Step by Step, Kit A, Continental Press Individualized Math, Houghton Mifflin	Compass Abacus Ruler

3^1

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Elementary School Math, Book 3, Addison-Wesley, (Teachers's Edition), pp. 17-155 Scope and Sequence of Elementary School Mathematics, pp. 73-75 SRA Elementary Mathematics Program, Book 3	Ruler Yardsticks Tape	foot length inch measurement mile segment yard
	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Cubes Floor tiles Pieces of carpet	square unit area estimation
	Addison-WEsley, 3 SRA Elementary Mathematics Program, Book 3	Cup container Pint container Quart container Gallon container Cubes	volume ounce
igit	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Lollipop sticks Ice cream sticks Toothpicks Matches	thousand million
	Addison-Wesley, 3	Matching games Spelling tests Teacher-made dittos	
	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Colonial Filmstrips Series Arithmetic-Step by Step, Kit A, Continental Press Individualized Math, Houghton Mifflin	Compass Abacus Ruler	compass center point

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Addition and subtraction concepts: Inverse relation Equations and solutions Basic principles	Elementary School Math 3, Addison-Wesley Acquiring Arithmetic Skills, McGraw-Hill Math Drill Kit, AA, Singer SVE	Pencils Poker chips Counting stick Number line
To know facts through 18	Addison-Wesley, 3 Acquiring Arithmetic Skills and Building Arithmetic Skills, McGraw-Hill Book 3, Steck-Vaughn Hayes Mastery Arithmetic Drills, Hayes Publishing co.	Flash cards Tapes Records
Geometry Lesson 2: Circles and pairs of points	Addison-Wesley, 3	Compass, Ruler
Inequalities	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Flannel board Magnetic board Chalkboard Teacher-made d
Reinforcement: Addition with carrying Subtraction with borrowing	Addison-Wesley, 3 Book 3, Steck-Vaughn SRA Elementary Mathematics Program, Book 3 Arithmetic-Step by Step, Kit A, Continental Press Math Drill Kit, AA, Singer SVE Addition, Subtraction, Multimedia Learning Lab	Ice cream stic Counting men Toothpicks Place holder c

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 3, Addison-Wesley Acquiring Arithmetic Skills, McGraw-Hill Math Drill Kit, AA, Singer SVE	Pencils Poker chips Counting sticks Number line	grouping princip solve solution plus sum subtract subtraction number line
Addison-Wesley, 3 Acquiring Arithmetic Skills and Building Arithmetic Skills, McGraw-Hill Book 3, Steck-Vaughn Hayes Mastery Arithmetic Drills, Hayes Publishing co.	Flash cards Tapes Records	minus
Addison-Wesley, 3	Compass Ruler	length of radius radius
Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Flannel board Magnetic board Chalkboard Teacher-made dittos	greater than less than inequality
Addison-Wesley, 3 Book 3, Steck-Vaughn SRA Elementary Mathematics Program, Book 3 Arithmetic-Step by Step, Kit A, Continental Press Math Drill Kit, AA, Singer SVE Addition, Subtraction, Multimedia Learning Lab	Ice cream sticks Counting men Toothpicks Place holder chart	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Word problems: Working on addition and subtraction skills	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3 Book 3, Steck-Vaughn Acquiring Arithmetic Skills and Building Arithmetic Skills, McGraw-Hill	
Geometry Lesson 3	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Compass Ruler Filmstrip #3.1
To work on skills with the following: Money Time Calendar	Addison-Wesley, 3 Book 3, Steck-Vaughn Acquiring Arithmetic Skills, McGraw-Hill Arithmetic, Step by Step, Kit A, Continental Press	Clocks (indivi Real money Play money Day-to-day cale (individual)
To introduce concept of multiplication: Groups of equivalent sets Number line Repeated addition Skip counting Product sets	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Book 3, Steck-Vaughn Arithmetic-Step by Step, Kit A, Continental Press	Objects for chi to use at sea Flannel board a Magnetic board magnetic obje Chalkboard

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3 Book 3, Steck-Vaughn Acquiring Arithmetic Skills and Building Arithmetic Skills, McGraw-Hill		
	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Compass Ruler Filmstrip #3.1	chord diameter
	Addison-Wesley, 3 Book 3, Steck-Vaughn Acquiring Arithmetic Skills, McGraw-Hill Arithmetic, Step by Step, Kit A, Continental Press	Clocks (individual) Real money Play money Day-to-day calendar (individual)	
ets	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Book 3, Steck-Vaughn Arithmetic-Step by Step, Kit A, Continental Press	Objects for children to use at seats Flannel board and cutouts Magnetic board and magnetic objects Chalkboard	factor multiplication product times

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Multiplication facts through 81: Multiplication table Logic Word problems	Scope and Sequence of Elementary School Mathematics, pp. 82-89 Addison-Wesley (Teacher's Edition), 3 pp. 156-269 Building Arithmetic Skills, McGraw-Hill Books 3 and 4, Steck-Vaughn SRA Elementary Mathematics Program, Book 3 Math Drill Kit, AA, Singer SVE	Flannel board a Magnetic board magnetic obje Flash cards Records Tapes
Geometry Lesson 4: Angles and triangles	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Building Arithmetic Skills, McGraw-Hill	Matrix Ruler
Division concepts: Number of equivalent sets Number in a set Inverse to multiplication Repeated subtraction Number line Basic facts through 81 Word problems	Addison-Wesley, 3 Building Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 3 Books 3 and 4, Steck-Vaughn Math Drill Kit, AA, Singer SVE	Pencils Checker chips Marbles Ice cream stick Filmstrip # 3.8
Geometry Lesson 5: Right angles	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Compass Matrix
Order (commutative) principle: Addition and multiplication	Addison-Wesley, 3	Concrete object children to u set demonstra at their desk

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Scope and Sequence of Elementary School Mathematics, pp. 82-89 Addison-Wesley (Teacher's Edition), 3 pp. 156-269 Building Arithmetic Skills, McGraw-Hill Books 3 and 4, Steck-Vaughn SRA Elementary Mathematics Program, Book 3 Math Drill Kit, AA, Singer SVE	Flannel board and cutouts Magnetic board and magnetic objects Flash cards Records Tapes	factor
	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Building Arithmetic Skills, McGraw-Hill	Matrix Ruler	angle triangle
s n	Addison-Wesley, 3 Building Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 3 Books 3 and 4, Steck-Vaughn Math Drill Kit, AA, Singer SVE	Pencils Checker chips Marbles Ice cream sticks Filmstrip # 3.8	divide division quotient
	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Compass Matrix	right angle
ple: ion	Addison-Wesley, 3	Concrete objects for children to use for set demonstrations at their desks	grouping principle multiplication-addition-Principle order principle

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Grouping (associative) principle: Multiplication and addition	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3 Math Drill Kit, Singer SVE, AA	Rulers Flannel board Number line
Zero and 1 principles: Addition and multiplication	Addison-Wesley ,3	Number line Flannel board Magnetic boar
Multiplication-addition distributive principle	Addison-Wesley, 3 Hayes Mastery Arithmetic Drills and Test, Grade 3, Hayes Pub. Co. Math Drill Kit, Singer SVE, AA	Crayons Flannel board Filmstrip #3.
Geometry Lesson 6: Right triangles Rectangles	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Rulers Tin plates
Multiplication: Addition principle Estimation Inequalities One digit Two, three, and four digits	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Building Arithmetic Skills, McGraw-Hill Arithmetic-Step by Step, Kit A, Continental Press Math Drill Kit, Singer, SVE, AA	Crayons Sticks Chips Concrete obje child's own Filmstrip # 3
Word problems over content covered	Addison-Wesley, 3 Book 4, Steck-Vaughn Building Arithmetic Skills, McGraw-Hill	Teacher-made
Geometry Lesson 7: Quadrilaterals	Addison-Wesley, 3 SRA Elementary Mathematics Program Book 3	Ruler

126

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
ition	Elementary School Math 3, Addison-Wesley SRA Elementary Mathematics Program, Book 3 Math Drill Kit, Singer SVE, AA	Rulers Flannel board Number line	
tion	Addison-Wesley, 3	Number line Flannel board and cutouts Magnetic board	
	Addison-Wesley, 3 Hayes Mastery Arithmetic Drills and Test, Grade 3, Hayes Pub. Co. Math Drill Kit, Singer SVE, AA	Crayons Flannel board and cutouts Filmstrip #3.7	
	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3	Rulers Tin plates	rectangles
gits	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Building Arithmetic Skills, McGraw-Hill Arithmetic-Step by Step, Kit A, Continental Press **Math Drill Kit, Singer, SVE, AA**	Crayons Sticks Chips Concrete objects for child's own sets Filmstrip # 3.8	
t	Addison-Wesley, 3 Book 4, Steck-Vaughn Building Arithmetic Skills, McGraw-Hill	Teacher-made materials	
	Addison-Wesley, 3 SRA Elementary Mathematics Program Book 3	Ruler	quadrilateral

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Time:	Elementary School Math 3,	Calendar
Clocks	Addison-Wesley	Clocks
Calendar	Book 4, Steck-Vaughn	Materials menti
	Building Arithmetic Skills, McGraw-Hill	previously

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 3, *Addison-Wesley* *Book 4*, Steck-Vaughn *Building Arithmetic Skills*, McGraw-Hill	Calendar Clocks Materials mentioned previously	

STEP X GRADE 3^3

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Dividing: Estimation Inverse relation Repeated subtraction Inequalities Logic Long-division Word problems	Elementary School Math 3, Addison-Wesley (Teacher's Edition), pp. 370-343 Building Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 3 Scope and Sequence of Elementary School Mathematics, pp. 90-94 Math Drill Kit, BB, Singer SVE	Objects for se strations, p crayons, che small contai as a bag or them in Balance scales Charts Number line
Number theory: Even numbers Odd numbers Multiples Factors Prime numbers	Addison-Wesley, 3	Number line Number charts Matrix Flannel board Filmstrips
Fractions: Fraction concepts Equivalent fractions Inequivalent fractions Word problems	Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Book 3, Steck-Vaughn Math Drill Kit, AA, Singer SVE	Materials and that can be parts Instructo puzz Filmstrips
Time: Clock Calendar	Addison-Wesley, 3 Building Arithmetic Skills, McGraw-Hill	Overhead and t parencies Methods previo mentioned

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math 3, Addison-Wesley (Teacher's Edition), pp. 370-343 Building Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 3 Scope and Sequence of Elementary School Mathematics, pp. 90-94 Math Drill Kit, BB, Singer SVE	Objects for set demonstrations, pencils, crayons, checkers, and small containers such as a bag or box to keep them in Balance scales Charts Number line	estimate remainder
Addison-Wesley, 3	Number line Number charts Matrix Flannel board Filmstrips	
Addison-Wesley, 3 SRA Elementary Mathematics Program, Book 3 Book 3, Steck-Vaughn Math Drill Kit, AA, Singer SVE	Materials and shapes that can be cut into parts Instructo puzzles Filmstrips	equivalent fraction one-fourth one-third one-fifth one-sixth one-eighth one-half
Addison-Wesley, 3 Building Arithmetic Skills, McGraw-Hill	Overhead and transparencies Methods previously mentioned	

STEP XI: Grade 4[1]

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Length: Arbitrary units Inches and centimeters to the nearest half-unit	Exploring Elem. Math Book 4, Holt Scope and Sequence of Elementary Mathematics, pp. 104-112 SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill	Rulers (inch an centimeter) Yardsticks
Area: Counting squares Approximation	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4	Squares of wood Floor tiles
Volume: Counting cubes Liquid	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill	Blocks Cup, pint, quar gallon contai
Perimeter: Polygons Comparison with area	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4	Desks or tables room
Surface area: Space figures Comparison with volume	Exploring Elem. Math Book 4, Holt	Wires and ropes String and peg
Place Value: Read through millions General concept of billions and trillions Inequalities Word problems	Exploring Elem. Math Book 4, Holt Book 4, Steck-Vaughn SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill	Ruler Objects that c grouped by t (pencils, lo sticks, etc. Rubber bands Abacus Counting men Pocket chart Paper clips

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
nit	Exploring Elem. Math Book 4, Holt Scope and Sequence of Elementary Mathematics, pp. 104-112 SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill	Rulers (inch and centimeter) Yardsticks	area centimeter cube estimate foot mile ounce perimeter scale segment square surface area unit yard
	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4	Squares of wood Floor tiles	
	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill	Blocks Cup, pint, quart gallon containers	
	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4	Desks or tables in room	
	Exploring Elem. Math Book 4, Holt	Wires and ropes String and peg boards	
s	Exploring Elem. Math Book 4, Holt Book 4, Steck-Vaughn SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill	Ruler Objects that can be grouped by tens (pencils, lollipops sticks, etc.) Rubber bands Abacus Counting men Pocket chart Paper clips	billion digit hundred million numeral place value set thousand trillion

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Geometry Lesson I: Sets of points	Exploring Elem. Math Book 4, Holt	Filmstrips #4. 4.10
Experiences with the following: Addition and subtraction Equations and solutions Inverse relation Facts through 18 Word problems Carrying and borrowing	Exploring Elem. Math Book 4, Holt Continuing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 4	Objects for de stration Rulers Number line Pocket chart Filmstrips: #4. #4.2, #4.3, #
Work with dollar and decimal point notation	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4	Play money and currency
Geometry Lesson 2: Parallel lines	Exploring Elem. Math Book 4, Holt	Straightedge
Multiplication and division: Repeated addition and subtraction Facts through 81 Skip counting Product sets Multiplication table	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Continuing Arithmetic Skills, McGraw-Hill Arithmetic-Step by Step, Kit A, Continental Press	Objects for se demonstratio Number line Graph paper Flash cards Filmstrip #4.4

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Exploring Elem. Math Book 4, Holt	Filmstrips #4.1, 4.2, 4.10	geometric figure set of points
owing: n.-	Exploring Elem. Math Book 4, Holt Continuing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 4	Objects for demonstration Rulers Number line Pocket chart Filmstrips: #4.1, #4.2, #4.3, #4.10	add addend addition compare difference equals equation greater than grouping principle
nal	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Book 4	Play money and currency	inequality less than matching lines minus number line order principle plus set solution solve
	Exploring Elem. Math Book 4, Holt	Straightedge	subtract subtraction sum
on: ub-	Exploring Elem. Math Book 4, Holt SRA Elementary Mathematics Program, Continuing Arithmetic Skills, McGraw-Hill Arithmetic-Step by Step, Kit A, Continental Press	Objects for set demonstration Number line Graph paper Flash cards Filmstrip #4.4	parallel product quotient times divide division multiplication multiplication-addition-principle order principle for multiplication

135

STEP XII Grade 4I

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Multiplication and division: Basic principles Inverse relation Word problems	Exploring Elem. Math, Book 4, Holt Scope and Sequence of Elementary School pp. 105-112 Book 4, Steck-Vaughn	Objects for se demonstrati Number line Graph paper Filmstrip #4,
Geometry Lesson 3: Parallelograms	Exploring Elem. Math, Book 4, Holt	Filmstrip #4. Straightedge Scissors
Special problems and quotients: Products that are multiples of 10, 100, 1,000 Related quotients Special attention to the multiplication-addition principle Summary of basic principles	Exploring Elem. Math, Book 4, Holt SRA Elementary Mathematics Program, Book 4	Objects easil by tens or
Geometry Lesson 6: Right triangles	Exploring Elem. Math, Book 4, Holt	Straightedge Filmstrip #4.
Estimation: Sums Differences Products Missing factors Quotients Special attention to estimates leading to development of the division algorithm Word problems	Exploring Elem. Math, Book 4, Holt Continuing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 4	Jar of marble Paper bags Several small such as cups A large conta as a mixing Filmstrip #4.

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
on:	Exploring Elem. Math, Book 4, Holt Scope and Sequence of Elementary School pp. 105-112 Book 4, Steck-Vaughn	Objects for set demonstrations Number line Graph paper Filmstrip #4,5	
	Exploring Elem. Math, Book 4, Holt	Filmstrip #4.10 Straightedge Scissors	parallelogram
ents: ples	Exploring Elem. Math, Book 4, Holt SRA Elementary Mathematics Program, Book 4	Objects easily grouped by tens or hundreds	
ples			
	Exploring Elem. Math, Book 4, Holt	Straightedge or ruler Filmstrip #4.10	right triangle legs of right triangle diagonal hypotenuse isosceles triangle
	Exploring Elem. Math, Book 4, Holt Continuing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 4	Jar of marbles Paper bags Several small containers, such as cups A large container, such as a mixing bowl Filmstrip #4.6	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Geometry Lesson 5: Polygons and diagonals	Exploring Elementary Math, Book 4, Holt	Straightedge c
Multiplying: Use of multiplication-addition principle Estimation Inequalities Products involving fractions with two-three-four digits Word problems	Exploring Elementary Math Book 4, Holt SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, Webster Hayes Mastery Arithmetic Drills and Tests, Grade 4, Hayes Pub. Co. Multiplication, Multimedia Learning Lab Individualized Math, Houghton Mifflin	Graph paper Ruler Scissors Paste or tape
Geometry Lesson 6: Cubes	Exploring Elementary Math Book 4, Holt	Filmstrip #4.4 Blocks
Dividing: Estimation Inverse relation Repeated subtraction Inequalities Reasoning Long-division process: Two-digit divisors Word problems Averages	Exploring Elementary Math Book 4, Holt SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill Book 4, Steck-Vaughn Division, Multimedia Learning Lab Individualized Math, Houghton Mifflin	Fahrenheit the Centigrade the Large map of U Compass Filmstrips #4.
Geometry Lesson 7: Triangular pyramids	Exploring Elementary Math Book 4, Holt	Ruler

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
	Exploring Elementary Math, Book 4, Holt	Straightedge or ruler	hexagon pentagon polygon quadrilateral vertex
ions igits	Exploring Elementary Math Book 4, Holt SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, Webster Hayes Mastery Arithmetic Drills and Tests, Grade 4, Hayes Pub. Co. Multiplication, Multimedia Learning Lab Individualized Math, Houghton Mifflin	Graph paper Ruler Scissors Paste or tape	
	Exploring Elementary Math Book 4, Holt	Filmstrip #4.4 Blocks	
	Exploring Elementary Math Book 4, Holt SRA Elementary Mathematics Program, Book 4 Continuing Arithmetic Skills, McGraw-Hill Book 4, Steck-Vaughn Division, Multimedia Learning Lab Individualized Math, Houghton Mifflin	Fahrenheit thermometer Centigrade thermometer Large map of U.S. Compass Filmstrips #4.5, 4.6	average remainder
	Exploring Elementary Math Book 4, Holt	Ruler	triangular pyramid

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Inequalities of rational numbers		
Rational numbers greater than one		
Whole numbers and rational numbers		
Addition of rational numbers		
Use in linear measurement		
Word problems		

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY

rs

141

STEP XIV Grade 5^1

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Base ten	Exploring Elem. Math, Book 5, Holt Scope and Sequence of Elementary School Mathematics, pp. 121-128 SRA Elementary Mathematics Program, Books 5 and 6	Objects easily by tens Film: New Elem School Mathe Base 10
Place value to trillions	Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 5	Objects to be tens Rubber bands Pocket chart
Base four	Exploring Elem. Math, Book 5, Holt Directing Arithmetic Skills, McGraw-Hill	Pencils Checkers Lollipop stick Abacus
Roman numerals	Exploring Elem. Math, Book 5, Holt Directing Arithmetic Skills, McGraw-Hill	Teacher-made d
Evaluation of Hindu-Arabic numerals	Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 6	Teacher-made d
Expanded notation	Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 5	
Chapter review	Exploring Elem. Math, Book 5, Holt	
Measurement	Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill Book 5, Steck-Vaughn	Ruler Compass Protractor

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Exploring Elem. Math, Book 5, Holt Scope and Sequence of Elementary School Mathematics, pp. 121-128 SRA Elementary Mathematics Program, Books 5 and 6	Objects easily grouped by tens Film: New Elementary School Mathematics, Base 10	abacus base ten digit equation hundred million inequality numeral operation place value trillion
Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 5	Objects to be grouped by tens Rubber bands Pocket chart	
Exploring Elem. Math, Book 5, Holt Directing Arithmetic Skills, McGraw-Hill	Pencils Checkers Lollipop sticks Abacus	base four
Exploring Elem. Math, Book 5, Holt Directing Arithmetic Skills, McGraw-Hill	Teacher-made dittos	Roman numeral
Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 6	Teacher-made dittos	
Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 5		
Exploring Elem. Math, Book 5, Holt		
Exploring Elem. Math, Book 5, Holt SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill Book 5, Steck-Vaughn	Ruler Compass Protractor	

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Equations and operations: Number facts and functions Distributive principle Basic principles operations Number line games Word problems Chapter review Measurement	*Exploring Elem. Math, Book 5*, Holt *Scope and Sequence of Elementary Mathematics*, page 123 *SRA Elementary Mathematics Program, Book 5* *Directing Arithmetic Skills*, McGraw-Hill *Hayes Mastery Arithmetic Drills and Tests, Grade 5*, Hayes Pub. Co. *Math Applications*, S.R.A.	Number line Rulers (inch-c Pins and heavy Scissors Filmstrip #4.3
Reasoning: Sums and differences Multiples of 10, 100, and 1,000 Finding products Special quotients	*Exploring Elem. Math, Book 5*, Holt *Scope and Sequence of Elementary School Mathematics*, page 124 *Directing Arithmetic Skills*, McGraw-Hill *SRA Elementary Mathematics Program, Book 5*	Rulers (inch & Scissors

144

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
ons	Exploring Elem. Math, Book 5, Holt Scope and Sequence of Elementary Mathematics, page 123 SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill Hayes Mastery Arithmetic Drills and Tests, Grade 5, Hayes Pub. Co. Math Applications, S.R.A.	Number line Rulers (inch-centimeter) Pins and heavy paper Scissors Filmstrip #4.3	addend distributive principle equation factor function grouping principle minus order (commutative) principle parentheses quotient product repeated addition solution solve
	Exploring Elem. Math, Book 5, Holt Scope and Sequence of Elementary School Mathematics, page 124 Directing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 5	Rulers (inch & centimeter) Scissors	associative principle commutative principle consecutive

4

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Chapter review Measurement	Elementary School Math, 5, Holt Book 5, Steck-Vaughn	
Estimation: Multiples of 10 in estimation Multiples of 100 in estimation Estimating time, weight, and distance Measurement	Elementary School Math, 5, Holt Scope and Sequence of Elementary School Mathematics, page 126 Directing Arithmetic Skills, McGraw-Hill Book 5, Steck-Vaughn	Half-gallon mi Marbles to fil Ruler Stop watch Several small One large cont
Computing: Finding sums and differences Regrouping in subtraction Finding products Two- and three-digit factors Area and volume Height and depth Estimation Finding quotients Finding averages	Elementary School Math, 5, Holt SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill Book 5, Steck-Vaughn Individualized Math, Houghton Mifflin	A large U.S. m Teacher-made w problems and word problem

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Elementary School Math, 5, Holt Book 5, Steck-Vaughn		distributive principle even number factor multiple odd number formula parallelogram rectangle area
Elementary School Math, 5, Holt Scope and Sequence of Elementary School Mathematics, page 126 Directing Arithmetic Skills, McGraw-Hill Book 5, Steck-Vaughn	Half-gallon milk carton Marbles to fill carton Ruler Stop watch Several small containers One large container	estimate surface area
Elementary School Math, 5, Holt SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill Book 5, Steck-Vaughn Individualized Math, Houghton Mifflin	A large U.S. map Teacher-made word problems and more word problems	average regrouping computation

STEP XV GRADE 5^2

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Computing advanced problems: Two-digit divisors Dividing and multiplying by multiples of 10 Zeros in the quotient Multiplying and dividing using money Review: Measurement	Exploring Elem. School Math 5 Scope and Sequence of Elementary School Mathematics, pp. 129-134 SRA Elementary Mathematics Program, Books 5 and 6 Directing Arithmetic Skills, McGraw-Hill Division, Multiplication, Multimedia Learning Lab	A set of block for volume
Geometry: Sets of points Segments, rays, and lines Congruent segments Constructing and comparing angles Copying triangles Space figures Chapter review	Exploring Elem. School Math 5 SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill	Compass Ruler Cardboard back compass tip String Paper suitable tracing geom figures

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
s: by	Exploring Elem. School Math 5 Scope and Sequence of Elementary School Mathematics, pp. 129-134 SRA Elementary Mathematics Program, Books 5 and 6 Directing Arithmetic Skills, McGraw-Hill Division, Multiplication, Multimedia Learning Lab	A set of blocks or cubes for volume concept	time rate distance volume area perimeter
s ng	Exploring Elem. School Math 5 SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill	Compass Ruler Cardboard backing for compass tip String Paper suitable for tracing geometric figures	angle bisect compass cone congruent construction cube cylinder line plane point prism pyramid ray segment space sphere torus triangle vertex

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Number theory: Factors Prime numbers Union and intersection of sets Common multiples Chapter review Measurement	Exploring Elem. School Math 5, Holt SRA Elementary Mathematics Program, Book 5	Thin tracing Scissors Filmstrips #4.
Fractions: Number pairs and fractions Numerator and denominator Equivalent fractions Lower and higher terns Writing problems Chapter review Measurement	Exploring Elem. School Math 5 SRA Elementary Mathematics Program, Book 5 Book 5, Steck-Vaughn Directing Arithmetic Skills, McGraw-Hill	Objects for se demonstratio Objects which readily cut Scissors Protractor. Thin tracing Flannel board Fractions boar Filmstrips #4. #4.9

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
of	Exploring Elem. School Math 5, Holt SRA Elementary Mathematics Program, Book 5	Thin tracing paper Scissors Filmstrips #4.2, #4.6	common factor common multiple common number factor factor tree greatest common factor intersection of two sets least common multiple prime factor prime number union of two sets least common multiple prime factor prime number union of two sets degree radian
ons or	Exploring Elem. School Math 5 SRA Elementary Mathematics Program, Book 5 Book 5, Steck-Vaughn Directing Arithmetic Skills, McGraw-Hill	Objects for set demonstrations Objects which can be readily cut Scissors Protractor Thin tracing paper Flannel board Fractions board or chart Filmstrips #4.7, #4.8, #4.9	denominator equivalent fraction fraction higher terns improper fraction lower terms lowest terms number pair numerator reducing to lowest terms

STEP XVI Grade 5^2

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Rational numbers: Transition from fractions to numbers Rational number related to equivalent fractions Naming rational numbers Rational numbers and the number line Equality for rational numbers Inequalities for rational numbers Word problems Measurement	Exploring Elem. Math, Book 5, Holt Scope and Sequence Elementary School Mathematics, pp. 135-141 SRA Elementary Mathematics Program, Book 5	A graduated me Objects easily demonstrate and rational Number line
Addition and subtraction of rational numbers Whole numbers and rational numbers Mixed numerals Skills for finding the sum of two rational numbers Relationship between subtraction of rational numbers and addition of rational numbers Least common denominator method for adding and subtracting two rational numbers Sums and differences using mixed numerals Word problems Measurement	Exploring Elem. Math, Book 5, Holt Directing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 5 Book 5, Steck-Vaughn	Centigrade the Fahrenheit the Cut-outs

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Exploring Elem. Math, Book 5, Holt Scope and Sequence Elementary School Mathematics, pp. 135-141 SRA Elementary Mathematics Program, Book 5	A graduated measuring cup Objects easily dut to demonstrate fraction and rational numbers Number line	rational number equality ratio bushel peck ton
Exploring Elem. Math, Book 5, Holt Directing Arithmetic Skills, McGraw-Hill SRA Elementary Mathematics Program, Book 5 Book 5, Steck-Vaughn	Centigrade thermometer Fahrenheit thermometer Cut-outs	least common denominator line graph mixed numeral pictograph centimeter decimeter meter millimeter

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
Decimals: Decimals and place value Decimal notations for tenths hundredths, and thousandths Adding and subtracting rational numbers using decimal notation Relationship between dollar notation and decimal notation Word problems Measurement	Exploring Elem. School Math, Book 5 SRA Elementary Mathematics Program, Book 5	Meter stick Centimeter rul
Multiplication and division of rational numbers; Interpretation using parts of regions Interpretation using the number line Basic principles for rational numbers Introduction of division of rational numbers through the relationship between multiplication and division Word problems	Exploring Elem. School Math, Book 5 Scope and Sequence of Elementary School Mathematics, page 139	Number line Graduated unit measure: pt
Graphing: Graphs of number on the number line Establishing the usual coordinate system by relating it to the concept of product sets Graphing points on a plane by relating points of pairs of numbers	Exploring Elem. School Math, Book 5 SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill	Graph paper Straightedge Ruler

nths
dths
ation-
l
lar
n
ts
p
and
o-
ting
o-
ne
airs

TEXTS & RESOURCE MATERIALS	TEACHING AIDS	VOCABULARY
Exploring Elem. School Math, Book 5 SRA Elementary Mathematics Program, Book 5	Meter stick Centimeter ruler	hundredth tenth thousandth
Exploring Elem. School Math, Book 5 Scope and Sequence of Elementary School Mathematics, page 139	Number line Graduated units of measure: pt., qt., gal.	sequential regions factors numerator denominator discovery dimension ratio scale drawing perimeter volume
Exploring Elem. School Math, Book 5 SRA Elementary Mathematics Program, Book 5 Directing Arithmetic Skills, McGraw-Hill	Graph paper Straightedge Ruler	graph input output

STEP XVII INTERMEDIATE

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
Reviewing basic arithmetic skills: Addition Subtraction Multiplication Division	The New Arithmetic, Grade 6, (Teacher's Edition), Addison-Wesley, pp. 353-369 Sequences and Suggested Time Allotments for JH Math Courses, 1969-1970 Exploring Elementary Math, 6, Holt Acquiring, Building, Continuing & Developing Arithmetic Skills, McGraw Hill Addition, Subtraction, Multiplication, Division Multimedia Learning Lab Math Drill Kits, AA, BB, CC, Singer-SVE Math Applications Kit, S.R.A. Math Drill Tapes, Continuous Progress Lab	Film: Donald Du Mathemagic Lan Harris Co. Fil Multiplication c Addition charts Symbol charts SRA crossword pu and the workbo Relationship car tion and subtr Relationship car tiplication an sion Games: The Winn and Smarty
Systems of numeration: Roman Hindu-Arabic Chinese Egyptian Mayan Babylonian	Modern School Mathematics, Grade 7, Houghton Mifflin Theory of Arithmetic, John Wiley & Sons A Guide for Teaching Seventh Grade Mathematics, Curriculum Bulletin #69JH7 Exploring Elementary Math, 6, Holt	Symbol charts
Place value: Bases Exponents Expanded notation	Modern School Mathematics, Grades 7 and 8 Exploring Elementary Math, 6, Holt	Base charts Stop watch Tape recorder

TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS	OBJECTIVES
The New Arithmetic, Grade 6, (Teacher's Edition), Addison-Wesley, pp. 353-369 Sequences and Suggested Time Allotments for JH Math Courses, 1969-1970 *Exploring Elementary Math*, 6, Holt *Acquiring, Building, Continuing & Developing Arithmetic Skills*, McGraw Hill *Addition, Subtraction, Multiplication, Division* Multimedia Learning Lab *Math Drill Kits*, AA,BB,CC, Singer=SVE *Math Applications Kit*, S.R.A. *Math Drill Tapes*, Continuous Progress Lab	Film: *Donald Duck and Mathemagic Land*, Harris Co. Film Library Multiplication charts Addition charts Symbol charts SRA crossword puzzle cards and the workbook Relationship card--addition and subtraction Relationship card--multiplication and division Games: *The Winning Touch*, and *Smarty*	To find the skills and level of working of each child
Modern School Mathematics, Grade 7, Houghton Mifflin *Theory of Arithmetic*, John Wiley & Sons *A Guide for Teaching Seventh Grade Mathematics*, Curriculum Bulletin #69JH7 *Exploring Elementary Math*, 6, Holt	Symbol charts	To teach the students that the Hindu-Arabic system is not the only one, but is the most efficient, and practical To improve their abstract reasoning
Modern School Mathematics, Grades 7 and 8 *Exploring Elementary Math*, 6, Holt	Base charts Stop watch Tape recorder	To help students discover that the position of number has meaning decided by convention

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
Sets: Sets and their members Sets and subsets Comparing sets Intersection of sets Union of sets Venn diagrams	Modern School Mathematics, Grade 7 A Guide for Teaching Seventh Grade Mathematics, Curriculum #69JH7 School Mathematics, Addison Wesley	
Sets of numerals		
Natural numbers: Commutative property Associative property Distributive principle Identity elements Inverses Limit of set of numbers Relationship between + and - + and x x and + + and -	Grade 6, Addison-Wesley Modern School Mathematics, Grade 7	The Arithmetic T Oct., 1968 Overhead project Tape recorder an
Whole numbers: To emphasize advantage of having zero To go into application and computation more To practice operations and inverses Word problems	Grade 6, Addison-Wesley A Guide for Teaching Sixth Grade Mathematics, Curriculum Bulletin # 68 JHR1	Overhead project transparencies
Integers: To review previous relationships Operations with negative numbers	Modern School Mathematics, Grade 7 Seeing Through Mathematics, Book 1, Scott, Foresman Math Curriculums: # 69 JH7, # 68 JHR1 Grade 6, Addison-Wesley	Abacus Cuisenaire rods Number line Films: M-88, M Region IV, Ed

TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS	OBJECTIVES
Modern School Mathematics, Grade 7 A Guide for Teaching Seventh Grade Mathematics, Curriculum #69JH7 School Mathematics, Addison Wesley		
Grade 6, Addison-Wesley Modern School Mathematics, Grade 7	The Arithmetic Teacher Oct., 1968 Overhead projector Tape recorder and tapes	To review basic facts and apply them
Grade 6, Addison-Wesley A Guide for Teaching Sixth Grade Mathematics, Curriculum Bulletin # 68 JHR1	Overhead projector and transparencies	To become more skillful in making use of the structure of arithmetic
Modern School Mathematics, Grade 7 Seeing Through Mathematics, Book 1, Scott, Foresman Math Curriculums: # 69 JH7, # 68 JHR1 Grade 6, Addison-Wesley	Abacus Cuisenaire rods Number line Films: M-88, M-93, from Region IV, Ed. Center	To find solution sets for conditions by using the four basic operations

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
Rational numbers: To review previous relationships: factors, multiples Equivalence classes Greatest common factor Lowest common factor Fraction Decimals Percents Inequalities Operations	Grade 6, Addison-Wesley A Guide for Teaching Sixth Grade Mathematics, Curriculum Bulletin $ 68 JHR1 Spring Branch ISD A Guide for Teaching Seventh Grade Mathematics, Curriculum Bulletin # 69 JH7, Spring Branch ISD Modern School Mathematics, Grade 7 Seeing Through Mathematics, Book 1, Scott, Foresman	Cuisenaire rods Rulers Yardsticks Fractional Overhead project Graph paper Eye Gate filmstr #174H #174I #165I
Measurement and geometry	Grade 6, Addison-Wesley A Guide for Teaching Sixth Grade Mathematics, Curriculum Bulletin #68 JHR1 Modern School Mathematics, Book 7 A Guide for Teaching Seventh Grade Mathematics, Curriculum Bulletin #69 JH7 Seeing Through Mathematics, Book 1	Demonstration ru Clear plastic ge figures Overhead project Number line Eason, Graphing

TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS	OBJECTIVES
Grade 6, Addison-Wesley *A Guide for Teaching Sixth Grade Mathematics*, Curriculum Bulletin $ 68 JHR1 Spring Branch ISD *A Guide for Teaching Seventh Grade Mathematics*, Curriculum Bulletin # 69 JH7, Spring Branch ISD *Modern School Mathematics, Grade 7* *Seeing Through Mathematics, Book 1*, Scott, Foresman	Cuisenaire rods Rulers Yardsticks Fractional Overhead projector Graph paper Eye Gate filmstrips: #174H #174I #165I	To apply the basic laws governing operations with rational numbers and discover that the properties that hold for operations with whole numbers also hold for operations with rational numbers
Grade 6, Addison-Wesley *A Guide for Teaching Sixth Grade Mathematics*, Curriculum Bulletin #68 JHR1 *Modern School Mathematics, Book 7* *A Guide for Teaching Seventh Grade Mathematics*, Curriculum Bulletin #69 JH7 *Seeing Through Mathematics, Book 1*	Demonstration rulers Clear plastic geometric figures Overhead projector Number line Eason, *Graphing Pictures*	To understand the nature of point, line, ray, angle, line segment, plane and the difference between these geometric concepts and the pictures used to represent them
		To understand the meaning of length, area, and volume

WRITING

PRELIMINARY CURRICULUM GUIDE, KISD

HANDWRITING

Grades K-6

1973

I. HANDWRITING MATERIALS

Grade One:
Tablets and notebooks with 3/8 inch ruling are used exclusively in all subject areas of the first grade. Regular size pencils are used.

Grades Two and Three:
Tablets and notebooks with 1/2 inch ruling are used exclusively in all subject areas of the second and third grades. Regular size pencils are used.

Grades Four through Six:
Same as grade one above. Regular size pencils and pens are used.

THE TEACHER'S HANDWRITING

It is important that the teacher use good handwriting. She should strive to write well since pupils unconsciously accept the teacher's writing as a standard and imitate it. Visitors, too, notice the quality and arrangement of the teacher's writing on the chalkboard; therefore, writing should always be neat, large, clear, and easily read. Quality is important also on:

- Charts
- Pupils' papers
- Notes to parents

II. EMPHASES

Aims

The primary aim of instruction in handwriting is to give each pupil the tool for written expression. Through purposeful teaching in meaningful situations, pupils develop at their successive maturing levels the following skills, knowledge, and attitudes:

- Awareness that legible handwriting is an essential communication skill
- Realization that neat, legible handwriting is a courtesy to the reader
- Ability and desire to write legibly with ease and reasonable speed
- Recognition that handwriting is developed to a high degree of automatic skill in order to free the thought processes of the writer
- Ability to analyze and evaluate handwriting with the following criteria:
  Size--height of letters
  Slant--uniform slant, parallel down-strokes
  Shape--width of letters, their similarity to the models
  Spacing--within a word and between words
  Alignment--placement on the base line
  Style--neatness, clean work, proper margins
- Observation of high quality handwriting in all written work

Guidelines for Regular Periods for Systematic Instruction

In addition to careful observance of all written work, the teacher gives a fifteen to twenty-minute period of handwriting instruction daily through the sixth grade. Every lesson is presented from the chalkboard. (The teacher adheres to the cursive letter forms.)

In every formal daily handwriting lesson, the following steps are observed:

1. Each child clears his desk of all materials except the paper and pencil or pen.
2. Each student is instructed as to the correct placement of the paper on the desk, the correct way to hold the pencil or pen and the proper posture.
3. The teacher presents the individual letter, letter combinations, and numerals from the chalkboard developing it by parts.
4. The students practice the letters and letter combinations in words and then in sentences.

Formation of Letters and Numerals

Letters and numerals are to be taught as they are formed in the adopted textbook for handwriting. There may be a discrepancy between the adopted texts and this document regarding ruling. However, when purchasing tablets and materials use the guidelines set on page 1.

Evaluation of Progress

From time to time the daily writing lesson of each pupil is collected and filed. Each time this is done, the teacher and the pupil compare the writing with that of samples previously collected in order to see the progress being made.

Samples of the writing that pupils do at times other than the writing period are also collected, compared with the writing done during the daily writing lesson, and filed. It is exceedingly important that teachers remember that the real test of the effectiveness of their instruction is the quality of writing which pupils do at times other than during the writing period.

III. MANUSCRIPT WRITING

GRADE ONE PROGRAM - Better Handwriting for You, Noble

Writing Readiness

In a beginning first grade group, most pupils are ready for directed writing instruction. For the small group of pupils who are not ready for writing, exercises designed to develop muscular coordination are provided. Finger plays, finger painting, clay modeling, and air drawings are included as well as exercises that involve the use of pencils and crayons.

Children show a readiness for formal instruction in handwriting when they can make original drawings using the basic strokes.

Spacing and Size

Two-space writing with three lines serving as guide lines is taught throughout the first grade. In beginning a page of writing, pupils leave a margin on the left side about the width of a finger and count down two spaces. For each additional line on the page, they count down three spaces.

Directed Practice

The teacher waits until the writing lesson has been completed to examine the work of individual pupils. Plans are then made for giving individual attention to those pupils who need special help.

A pupil is never asked to copy any piece of writing until the teacher is certain that he knows precisely where to start each letter and in which direction to move his pencil.

The teacher does not show each pupil how to write his name until the small letters with which it is spelled have received attention during the writing period. (Most pupils write their names in some fashion when they enter the first grade and are allowed to continue writing their names in such a manner until readiness for the change is developed.)

As a writing lesson progresses, the teacher's comments and questions help each pupil evaluate and improve his own writing. Basic principles of handwriting are emphasized by making comments and asking questions such as these:

- Be sure to start at the top and come straight down.
- Does the a touch top and bottom?
- Is the o round and fat?
- Make the N with two strokes. Be sure to lift the pencil between strokes.
- Write letters closely together but not touching.
- How many spaces are used to write h? To write e?
- Be sure to space before starting the next word.

GRADE TWO PROGRAM - Better Handwriting For You, Noble

Aims

Manuscript writing is taught daily throughout the second grade. Pupils are taught to read cursive writing during the last three weeks of the second grade, but instruction in cursive writing is not introduced until the third grade. The continued use of manuscript writing throughout the second grade results in more legible writing, more rapid writing, and greater fluency in written expression. The attitude of the teacher is important in making the second year of work in writing as valuable as it should be.

IV. CURSIVE WRITING

Pupils are taught to read cursive writing during the last whree weeks of the second grade, but instruction in cursive writing is not introduced until the third grade.

Spacing and Size

One-space writing is introduced at this level. Teachers work with the pupils consistently in keeping the size of their writing to a little less than one space for the tall letters and to one-half space for the small letters. Proper margins are to be observed, and spaces the width of the letter o are left between words.

Directed Practice

Pupils need as much guidance at this level as they did in the first grade if legible writing is to be maintained. Pupils learn to write well without relying on a guideline for the small letters. The pupils are instructed to be careful to make the first small letter in a word the proper size and then use it as a guide for all other letters in that line of writing.

As a writing lesson progresses, the teacher's comments and questions help each pupil evaluate and improve his own writing. Size, alignment, and spacing are emphasized by making comments and asking questions such as these:

- Be sure that letters rest on the base line.
- Remember that all small letters are one-half space high.
- Use the first small letter as a guide for other small letters on the same line.
- The tall letters should be only a little less than one space high.
- Are the letters in each word grouped closely together?
- Check the spacing between words. Is it the width of the letter o?

GRADE THREE PROGRAM - Better Handwriting for You, Noble

Maintenance of Manuscript Writing

When cursive writing is being taught, pupils are encouraged to maintain manuscript writing. They continue its correct use in labeling maps, posters, and other items.

Transition to Cursive Writing

Cursive writing is taught as an additional writing skill and not as a new skill to supplant manuscript writing. Pupils use manuscript writing for composition and spelling until they gain familiarity with the cursive form. Usually the change can be made in a few weeks if the pupils are ready for it and if some additional time is allotted for discussion and practice during that period. Most pupils are ready to learn cursive writing at the age of eight years or at the beginning of the third grade. By this time they should have had enough experience with manuscript writing to have acquired skill and practice in using it.

The following four factors should indicate pupils' readiness to begin cursive writing:

- An ability to write all letters of the manuscript alphabet from memory
- Adequate physical development for coordination of the muscles of the arm, hand, and fingers
- A desire on the part of the pupil to write in cursive style
- An ability to read simple sentences that the teacher has written on the chalkboard in cursive style

The complete transition to cursive writing should be accomplished by most students by the end of the first semester of grade three.

GRADE FOUR TO SIX PROGRAM

Teachers should study the procedure in grades one through three and refer to guidelines for the daily periods of handwriting instruction in this section.

STEP I: PRE-READINESS

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
1. Free-hand pictures on board	Our Days in Kindergarten, page 85	Chalkboard Primary white Primary colore
2. Scribbling on board		Primary chalk
3. Finger-painting: To encourage children to use movement		Large pieces o Finger paint
4. Drawing on board or finger-painting to music		Chalkboard Large pieces o Record player
5. Coloring on smaller sheets with primary colors		Manila paper Primary crayon
6. Tracing: With finger With crayons With pencil (movement of arm is most important)	Dubnoff School Program 1, Teaching Resources	Chalkboard Large pieces o Tracing paper Primary crayon Primary pencil
7. Writing with stick: Clay tray or pan Writing with finger: Instant pudding in pan.		Baking sheet o Clay not Play- Clay stick

ADINESS

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
on board	*Our Days in Kindergarten*, page 85	Chalkboard Primary white chalk Primary colored chalk
d		Primary chalk
ren to		Large pieces of white paper on wall Finger paint
r finger-		Chalkboard Large pieces of paper on wall Record player and records
r sheets s		Manila paper Primary crayons
most	*Dubnoff School Program* 1, Teaching Resources	Chalkboard Large pieces of paper Tracing paper Primary crayons Primary pencils
: r: pan.		Baking sheet or cake pan Clay not Play-Doh Clay stick

169

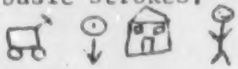
STEP II: Manuscript Readiness

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
1. Pull strokes on chalkboard Tracing with fingers Tracing with chalk |||	Noble & Noble, Better Handwriting for You Preliminary Curriculum Guide, K.I.S.D. Handwriting Grades 1-6, 1973	chalkboard Primary white Primary colore
2. Pull strokes on unlined paper		Primary pencil Unlined paper newsprint, m Tracing paper Colored pencil colored felt m
3. Push strokes on chalkboard (left to right) ≡ Tracing with fingers Tracing with chalk		
4. Push strokes on unlined paper		
5. Circles on chalkboard Tracing with finger ○○○ Tracing with chalk		
6. Circles on unlined paper		
7. Slant strokes on chalkboard Tracing with finger Tracing with chalk /// \\\		
8. Slant strokes on unlined paper		
9. Finger trace objects: circles squares rectangles triangles ovals		Clay trays Clay objects Objects of card Objects formed Sandpaper objec clear stencils Shapes template Parquetry Blocks

ness

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
oard	. Noble & Noble, Better Handwriting for You Preliminary Curriculum Guide, K.I.S.D. Handwriting Grades 1-6, 1973	chalkboard Primary white chalk Primary colored chalk
d paper		Primary pencils Unlined paper such as ditto paper, newsprint, manila paper, butcher paper. Tracing paper Colored pencils colored felt markers
oard		
d paper		
er		
board		
ed paper		
		Clay trays Clay objects Objects of cards Objects formed by Elmer's glue Sandpaper objects clear stencils (DLM) Shapes templates Parquetry Blocks

STEP II: Manuscript Readiness Continued

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AID
10. Draw simple pictures on chalkboard using 3 basic strokes. 	Noble & Noble, Better Handwriting for You -1 Preliminary Curriculum Guide, K.I.S.D. Handwriting Grades 1-6, 1973	Primary colo Crayons Music for mo occasions
11. Molding clay or ceramic clay		Clay
12. Connecting set symbols		coloring boo ditto master
13. Dot-to-dot		Dot-to-dot c
14. Finger plays		Finger play

eadiness Continued

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
res on g 3	Noble & Noble, Better Handwriting for You -1 Preliminary Curriculum Guide, K.I.S.D. Handwriting Grades 1-6, 1973	Primary colored chalk Crayons Music for mood on different occasions
eramic		Clay
mbols		coloring books ditto masters
		Dot-to-dot coloring books
		Finger play books

STEP III: Manuscript

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
1. Tracing and writing pull strokes on ruled chalkboard |||	Noble & Noble, Better Handwriting for You Preliminary Curriculum Guide K.I.S.D. Handwriting Grades 1-6, 1973	Pencils Chalkboard Primary chalk Crayons Colored pencil Colored felt m Tracing paper Vinyl writing Tracing paper Alpha-Tracks (Alphabet cards Alphabet templ Color-cued pap
2. Tracing and writing pull strokes on lined paper		
3. Tracing and writing push strokes on ruled chalkboard		
4. Tracing and writing push strokes on lined paper.		
5. Tracing and writing circles strokes on ruled chalkboard		
6. Tracing and writing circle strokes on lined paper.		
7. Tracing and writing slant strokes on ruled chalkboard.		
8. Tracing and writing slant strokes on lined paper.		
9. Tracing and writing the letter l on ruled chalkboard		
10. Tracing and writing the letter l on lined paper.		

	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
ull	Noble & Noble, Better Handwriting for You Preliminary Curriculum Guide K.I.S.D. Handwriting Grades 1-6, 1973	Pencils Chalkboard Primary chalk Crayons Colored pencils Colored felt markers Tracing paper Vinyl writing board (DLM) Tracing paper designs (DLM) Alpha-Tracks (DLM) Alphabet cards Alphabet template Color-cued paper
ull per		
ush alkboard		
ush per.		
ircles alkboard		
ircle per.		
lant alkboard.		
lant per.		
he letter rd		
the letter		

STEP III: Manuscript Continued

CONTENT	TEXTS & RESOURCE MATERIALS	TEACHING AID
11. Tracing and writing each letter as in #9 and #10 above. (Groupings are in approximate order of difficulty with like strokes). Grade 1 Ii Grade 2 L I Tt E F H Grade 3 Oo Cc G Q Grade 4 a d g e q Grade 5 D P B R p b Grade 6 V A X Y Z W K M N Grade 7 v x y z w k Grade 8 r n m h Grade 9 Ss Jj Uu f	Noble & Noble, Better Handwriting for You-1 Preliminary Curriculum Guide K.I.S.D. Handwriting Grades 1-6, 1973	Pencils Chalkboard Primary chalk Crayons Colored penci Colored felt Tracing paper Vinyl writing Tracing paper Alpha-Tracks Alphabet card Alphabet temp Colored cued
12. Reviewing letters taught to this point: Much chalkboard work, tracing and directed writing.	Noble & Noble, Better Handwriting for You-2	

Continued

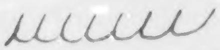
	TEXTS & RESOURCE MATERIALS	TEACHING AIDS
g each and #10 s are in r of like strokes).	Noble & Noble, Better Handwriting for You-1 Preliminary Curriculum Guide K.I.S.D. Handwriting Grades 1-6, 1973	Pencils Chalkboard Primary chalk Crayons Colored pencils Colored felt markers Tracing paper Vinyl writing board (DLM) Tracing paper designs (DLM) Alpha-Tracks (DLM) Alphabet cards Alphabet template Colored cued paper
t E F H G Q e q R p b Y Z W K M N z w k h Uu f		
taught Much tracing ting.	Noble & Noble, Better Handwriting for You-2	

177

STEP IV Cursive Readiness

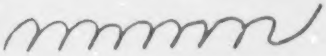
CONTENT

1. Waves on chalkboard



Tracing with fingers
Tracing with colored chalk

2. Mountains on chalkboard



Tracing with fingers
Tracing with colored chalk

3. Circles on chalkboard

4. Stick people

5. Finger trace objects:
   - Circles
   - Squares
   - Rectangles
   - Triangles
   - Ovals

6. Molding clay or ceramic clay

7. Connecting set symbols

8. Dot-to-dot

9. Finger plays

10. Air drawing

TEXTBOOKS & RESOURCE MATERIALS

Cruichshank, William M., The Teacher of Brain-Injured Children

Kephart, Newell C., The Slow Learner in the Classroom

Johnson, G. Orville, Education for the Slow Learners

Noble and Noble, Better Handwriting for You, Book 2 & 3

TEACHING AIDS

Primary size cha

Primary size cha
Pipe cleaners
Music for mood

Clay trays
Clay objects
Objects on cards
Object formed by
Sandpaper objec
Clear Stencils
Shapes template
Parquetry
Blocks
Coloring books

Dot-to-dot patt
Dot-to-dot colo

178

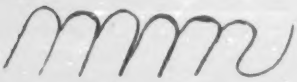
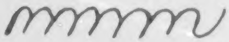
179

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
	Cruichshank, William M., The Teacher of Brain-Injured Children	Primary size chalk
chalk	Kephart, Newell C., The Slow Learner in the Classroom	
	Johnson, G. Orville, Education for the Slow Learners	
ard	Noble and Noble, Better Handwriting for You, Book 2 & 3	
chalk		
d		Primary size chalk Pipe cleaners Music for mood on different occasions
:		Clay trays Clay objects Objects on cards Object formed by Elmer's glue Sandpaper objects Clear Stencils (DLM) Shapes templates
mic clay		Parquetry Blocks
ls		Coloring books Dot-to-dot pattern sheets Dot-to-dot coloring books

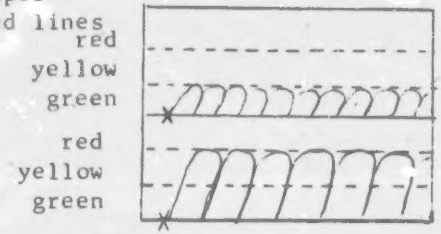
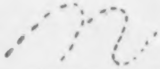
178

179

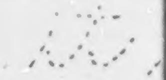
STEP V Cursive

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AID
1. Mountains on ruled chalkboard 	Cruickshank, William M., The Teacher of Brain-Injured Children Kephart, Newell, The Slow Learner in the Classroom Kirk, Samuel A., Education of Exceptional Children	White chalk Colored chalk Using x to sh
2. Mountains on paper 	Johnson, G. Orville, Education for the Slow Learners Dubnoff Cursive Handwriting Development Dubnoff School Program 1, Teaching Resources	Ditto paper Tracing paper Color-clued l ye g yel g
3. Tracing and writing m's on chalkboard		Primary chalk
4. Tracing and writing m's on paper		Ditto paper a
5. Writing m's and n's on chalkboard and paper		Connecting do Using x's to
6. Tracing and writing waves on the chalkboard, then on paper as in numbers 1 and 2 		Primary white Primary color Primary penci Colored penci
7. Tracing and writing on chalkboard, then on paper: u's w's		Ditto paper Tracing paper

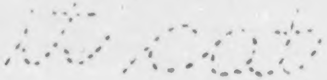
sive

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
d	Cruickshank, William M., The Teacher of Brain-Injured Children Kephart, Newell, The Slow Learner in the Classroom Kirk, Samuel A., Education of Exceptional Children	White chalk Colored chalk (to trace over white chalk) Using x to show child where to start
r	Johnson, G. Orville, Education for the Slow Learners Dubnoff Cursive Handwriting Development Dubnoff School Program 1, Teaching Resources	Ditto paper Tracing paper Color-clued lines 
ng m's		Primary chalk
ng m's		Ditto paper as in # 2
n's nd paper		Connecting dot letters  Using x's to show where to start
ng waves on hen on rs 1 and 2		Primary white chalk Primary colored chalk Primary pencils Colored pencils
ng on chalk- per: n		Ditto paper Tracing paper

STEP VI Chalkboard work as described previously should precede paper work. Use a ruled ch
chalk, finger, or pencil should precede the child's attempt at writing a letter.
teaching letters as they are listed

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AID
1. it (Stress coming down on same line)	Beaded letters (Ideal) *Tracing Paper Designs* (DLM) Dubnoff *Cursive Handwriting Development*	Tracing paper Color-cued pap Ditto paper Primary pencil Colored pencil Vinyl writing
2. cao (No loop in o)	Clay tray	Tracing letter Clay trays Pudding tray Sandpaper lett
3. Showing children they can now write some words: it, mit, at, cat, no, not, to, tin	Kephart, Newell C., *The Slow Learner in the Classroom*	Tracing dotted  Tracing words Tracing words
4. Reviewing letters taught to this point: Much chalkboard work, tracing and writing	Cursive alphabet cards Alpha-Tracks, DLM Pre-writing Design cards (DLM)	Primary chalk Primary pencil Primary crayon Tracing paper

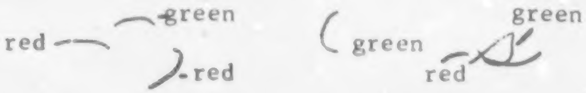
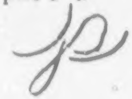
ork as described previously should precede paper work. Use a ruled chalkboard. Tracing with r, or pencil should precede the child's attempt at writing a letter. Follow general order of ters as they are listed.

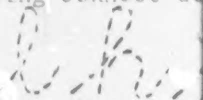
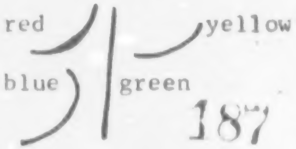
	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
n on same	Beaded letters (Ideal) Tracing Paper Designs (DLM) Dubnoff Cursive Handwriting Development	Tracing paper Color-cued paper Ditto paper Primary pencils Colored pencils Vinyl writing board (DLM)
	Clay tray	Tracing letters made with glue Clay trays Pudding tray Sandpaper letters
hey no, not,	Kephart, Newell C., The Slow Learner in the Classroom	Tracing dotted words, then write  Tracing words made with glue Tracing words made with clay
taught rk, g	Cursive alphabet cards Alpha-Tracks, DLM Pre-writing Design cards (DLM)	Primary chalk Primary pencils Primary crayons Tracing paper

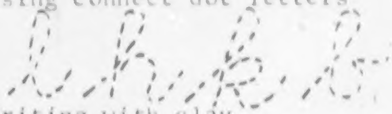
STEP VII Chalkboard work should precede paper work. Tracing should precede actual writing

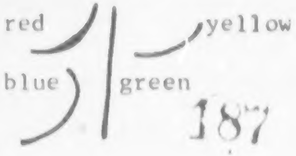
CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AID
1. Reviewing n, m	First Steps to Cursive Writing Better Handwriting for You, Noble, 2 & 3	Tracing paper Alpha Tracks,
2. Introducing x, v	Autokenetic Handwriting Program	Tracing beaded
3 Reviewing i, u, w	First Steps to Cursive Writing Better Handwriting for You, Noble, 2 & 3	Writing letter
4. Introducing s, r, e	Autokenetic Handwriting Program Dubnoff Cursive Handwriting Development	Reminder: Som especially har colors; have c you wrote them
5. Reviewing c, a, o	First Steps to Cursive Writing Better Handwriting, 2 and 3	Rolling clay c of teacher-mad
6. Introducing d	Autokenetic Handwriting Program	Writing differ ent colors
7. Reviewing t	First Steps to Cursive Writing Better Handwriting, 2 and 3	Feeling letter
8. Introducing p		Using color-cu different colo Using x to sho

ork should precede paper work. Tracing should precede actual writing of a letter.

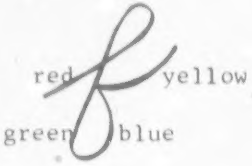
	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
m	First Steps to Cursive Writing Better Handwriting for You, Noble, 2 & 3	Tracing paper Alpha Tracks, DLM
r	Autckenetic handwriting Program	Tracing beaded letters
w	First Steps to Cursive Writing Better Handwriting for You, Noble, 2 & 3	Writing letters in clay
	Autokenetic Handwriting Program Dubnoff Cursive Handwriting Development	Reminder: Sometimes these letters are especially hard. Write them using two colors; have child trace them in colors you wrote them in 
	First Steps to Cursive Writing Better Handwriting, 2 and 3	Rolling clay out and making letter on top of teacher-made pattern
	Autokenetic Handwriting Program	Writing different parts of letter in different colors
	First Steps to Cursive Writing Better Handwriting, 2 and 3	Feeling letter made of glue
		Using color-cued letters--each part a different color Using x to show where to start 

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
9. Introducing l, h, k, b	Autokenetic Handwriting Program	Using connect do 
10. Reviewing i	First Steps to Cursive Writing Better Handwriting for You, Noble, 2 & 3	Writing with cla
1. Introducing j		Tracing with fin or sandpaper l
2. Reviewing x, v	First Steps to Cursive Writing Better Handwriting for You, Noble 2 & 3	Tracing paper
3. Introducing y, z		Using beaded let
4. Reviewing c, a	First Steps to Cursive Writing Better Handwriting for You, Noble 2 & 3	Connecting dot l
15. Introducing g, q		Color-clued to d
6. Reviewing e, l	First Steps to Cursive Writing Better Handwriting for You, Noble 2 & 3	Teacher-made di
17. Introducing f		Using color to s 

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
k, b	Autokenetic Handwriting Program	Using connect dot letters 
	First Steps to Cursive Writing Better Handwriting for You, Noble, 2 & 3	Writing with clay
		Tracing with finger on glue letters or sandpaper letters
	First Steps to Cursive Writing Better Handwriting for You, Noble 2 & 3	Tracing paper
		Using beaded letters (Ideal)
	First Steps to Cursive Writing Better Handwriting for You, Noble 2 & 3	Connecting dot letters
		Color-clued to differences
	First Steps to Cursive Writing Better Handwriting for You, Noble 2 & 3	Teacher-made dittos
		Using color to show different parts



187



STEP VIII

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AID
Much practice in writing letters in order	*First Steps to Cursive Writing* Continental Press duplicating masters	Chalkboard Wall chart Tracing paper Color-clued li Writing x to s Ideal--Alphabe Alpha-Tracks (
Practice in writing three- and four-letter words	*Spell Correctly*, Silver-Burdett *Power to Spell*, Houghton Language Experiences in Reading, Enc. Brittanica	Using basal sp Using vocabula Pre-writing de Self-expressiv

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
ng letters	First Steps to Cursive Writing Continental Press duplicating masters	Chalkboard Wall chart Tracing paper Color-clued lines Writing x to show where to start Ideal--Alphabet Practice Cards Alpha-Tracks (DLM)
ree- s	Spell Correctly, Silver-Burdett	Using basal spelling list Using vocabulary words in reading
	Po[illegible] to Spell, Houghton	Pre-writing design cards
	Language Experiences in Reading, Enc. Brittanica	Self-expressive stories in writing

STEP IX   Chalkboard work should precede all paper work. Tracing should precede the actual

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
1. O, A, C, E	Autokenetic Handwriting Program	Chalkboard White chalk
	Cruickshank, William M., The Teacher of Brain-Injured Children	Colored chalk Color-clued pap
2. S, G, L	First Steps to Cursive Writing	Tracing paper Letters made of Beaded letter
D, T, F	Kephart, Newell C., The Slow Learner in the Classroom	Connecting dot Pre-writing des
	Dubnoff, Cursive Handwriting Development	
4. P, B, R		
5. I, J		
6. N, M		
7. H, K		
8. V, U, Y		
9. X, W		
10. Q, Z		

ork should precede all paper work. Tracing should precede the actual writing of a letter.

TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
Autokenetic Handwriting Program	Chalkboard White chalk
Cruickshank, William M., *The Teacher of Brain-Injured Children*	Colored chalk Color-clued paper Tracing paper
First Steps to Cursive Writing	Letters made of glue Beaded letters
Kephart, Newell C., *The Slow Learner in the Classroom*	Connecting dot letters Pre-writing design cards (DLM)
Dubnoff, *Cursive Handwriting Development*	

STEP X Chalkboard work should precede all paper work. Tracing should precede the actu

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AI
Child's first name in cursive	Autokenetic Handwriting Program	Clay tray Writing with Tracing paper Pupil's own g with his fi Color clued p Pre-writing
Child's last name in cursive		Felt tipped p

d work should precede all paper work. Tracing should precede the actual writing of a letter.

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
cursive	Autokenetic Handwriting Program	Clay tray Writing with clay Tracing paper Pupil's own glue name for him to trace with his finger Color clued paper Pre-writing design cards Felt tipped pens, colored

STEP XI Chalkboard work should precede all paper work. Tracing should precede the actual

CONTENT

1. er, or, ur, ar
2. en, on, an, ay
3. tt, pp, nn, mm
4. oc, oa, oy, ov, oo
5. oe, oi, ou, ow
6. ea, ee, ei
7. ae, ai, aw
8. th, tr, tw
9. nk, ng
10. br, bl, be

TEXTBOOKS & RESOURCE MATERIALS

Webster Basic Spelling Goals, Grades 2 and 3
Spell Correctly, Silver-Burdett
Noble and Noble, Better Handwriting for You, Books 3 and 4
Follett Spelling and Writing Patterns
Dubnoff Cursive Handwriting Development
Power to Spell, Houghton

TEACHING AI

Basic spellin
Reading vocab
Tracing paper
Clay trays
Writing with
Sandpaper let
Pre-writing de

194

work should precede all paper work. Tracing should precede the actual writing of a letter.

TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
Webster Basic Spelling Goals, Grades 2 and 3	Basic spelling list, grade one
Spell Correctly, Silver-Burdett	Reading vocabulary words
Noble and Noble, Better Handwriting for You, Books 3 and 4	Tracing paper
Follett Spelling and Writing Patterns	Clay trays
Dubnoff Cursive Handwriting Development	Writing with clay
Power to Spell, Houghton	Sandpaper letters
	Pre-writing design cards (DLM)

ar

n,ay

nn,mm

ov,oo

ow

w

w

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING
11. ba, bu, bo	Spell Correctly, Silver-Burdett Basic Spelling Goals, Webster Power to Spell, Houghton	Basic spelli Reading voca Tracing pape Clay trays Writing with Sandpaper le Pre-writing
12. or, on, as, of		
13. ck, ch		
14. ll, bb, ff		
15. dd, gg		
16. rr, ss		
17. ry, ty, dy		
18. qu		
19. ph, gh, lf		
20. ct		

TEXTBOOKS & RESOURCE MATERIALS

Spell Correctly, Silver-Burdett
Basic Spelling Goals, Webster
Power to Spell, Houghton

TEACHING AIDS

Basic spelling words
Reading vocabulary words
Tracing paper
Clay trays
Writing with clay
Sandpaper letters
Pre-writing design cards (DLM)

CONTENT	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
21. ble, dle	Spell Correctly, Silver-Burdett Basic Spelling Goals, Webster Power to Spell, Houghton	Basic spelling Reading vocabu Writing words Tracing paper Writing words Tracing glue w Sandpaper lett Pre-writing de
22. tle, ple		
23. zy		
24. ly, by		
25. ex		
26. Work on contractions Examples: isn't it's hasn't can't	Dictionary	Words from bas

	TEXTBOOKS & RESOURCE MATERIALS	TEACHING AIDS
	Spell Correctly, Silver-Burdett Basic Spelling Goals, Webster Power to Spell, Houghton	Basic spelling words Reading vocabulary words Writing words in clay Tracing paper Writing words with clay Tracing glue words or letters Sandpaper letters Pre-writing design cards (DLM)
ons	Dictionary	Words from basic readers

PERCEPTUAL DEVELOPMENT

200

AREA I: MOTOR

CONTENT	RESOURCE MATERIALS	TEACHING AIDS
1. Balance and maintenance of posture	Belgau, Frank, Handbook for Perceptual Development Chaney, Clara M., and Newell C. Kephart, Motoric Aids to Perceptual Training Cruickshank, William M., The Teacher of Brain-Injured Children Developing Learning Readiness, Webster Division, McGraw-Hill Frostig, Marianne, Frostig Program for Development of Visual Perception Kephart, Newell C., The Slow Learner in the Classroom Record: Body Awareness And Position in Space, New York: Educational Activities Record: Dynamic Balancing Activities, New York: Educational Activities	Mirror Walking board Balancing board Jumping board Angels in the sno Hokey Pokey Crawl Skip Gallop Sit-up Roll Jumping Puppets Playing with pape Dressing and und Walking: toe, h steps, of fas steps, slow s right, in squ Running variatio walking Skipping: varia Jumping: one-fo forwar circle
2. Locomotion: Relationship between objects in space Use of terms: over, under on, in, up, down	Belgua, Frank, Perceptual Developmental Handbook of Activities Cruickshank, William M., The Teacher of Brain-Injured Children	Books Blocks Balls Boxes Jumping board Rope

DR

	RESOURCE MATERIALS	TEACHING AIDS
nce of	Belgau, Frank, Handbook for Perceptual Development Chaney, Clara M., and Newell C. Kephart, Motoric Aids to Perceptual Training Cruickshank, William M., The Teacher of Brain-Injured Children Developing Learning Readiness, Webster Division, McGraw-Hill Frostig, Marianne, Frostig Program for Development of Visual Perception Kephart, Newell C., The Slow Learner in the Classroom Record: Body Awareness And Position in Space, New York: Educational Activities Record: Dynamic Balancing Activities, New York: Educational Activities	Mirror Walking board Balancing board Jumping board Angels in the snow Hokey Pokey Crawl Skip Gallop Sit-up Roll Jumping Puppets Playing with paper dolls Dressing and undressing dolls Walking: toe, heel, side, fast, slow, big steps, small steps, combination of fast-large steps and slow-large steps. small-fast steps and small-slow steps. Direction: left, right, forward, backward, in circle, in square, etc. Running variations, such as listed for walking Skipping: variations Jumping: one-foot, two-feet, left, right, forward, backward, straightline, circle, square, fast, slow, etc.
under	Belgua, Frank, Perceptual Developmental Handbook of Activities Cruickshank, William M., The Teacher of Brain-Injured Children	Books Blocks Balls Boxes Jumping board Rope

1

CONTENT	RESOURCE MATERIALS	TEACHING AID
2. (Continued)	Records: Developing Perceptual-Motor Needs New York: Educational Activities Frostig, Marianne, Frostig Program for Development of Visual Perception Kephart, Newell C., The Slow Learner in the Classroom Manual of Motor-Perceptual Activities, Department of P.E., Pontiac Public Schools, Pontiac, Michigan	Push-ups Cat stretching Chalkboard Hula hoop Duck walk Elephant Walk Yoga Counting and mov Walking up and d Skipping Hopping Throwball skills
3. Contact with objects movable or stationary	Cruickshank, William M., The Teacher of Brain-Injured Children Developing Learning Readiness, Webster Division, McGraw-Hill Frostig, Marianne, Frostig Program for Development of Visual Perception Kephart, Newell C., The Slow Learner in the Classroom	Walk (over, arou Crawl (over, aro Barrel Monkey bars Game: "Simon Sa Playing and work Color, cut and p Finger tracing Obstacle course
4. Movement toward and away from child	Belgua, Frank, Handbook of Activities, Perceptual Development Card file: Learning and Playing, New York: Educational Activities Cruichshank, William M., The Teacher of Brain-Injured Children	Jumping board Jumping tube Throwing and cat Bouncing ball Jumping rope Dodgeball Suspendable ball Rocking board Kickball

	RESOURCE MATERIALS	TEACHING AIDS
	Records: Developing Perceptual-Motor Needs New York Educational Activities Frostig, Marianne, Frostig Program for Development of Visual Perception Kephart, Newell C., The Slow Learner in the Classroom Manual of Motor-Perceptual Activities, Department of P.E., Pontiac Public Schools, Pontiac, Michigan	Push-ups Cat stretching Chalkboard Hula hoop Duck walk Elephant Walk Yoga Counting and moving blocks Walking up and down stairs Skipping Hopping Throwball skills
s nary	Cruickshank, William M., The Teacher of Brain-Injured Children Developing Learning Readiness, Webster Division, McGraw-Hill Frostig, Marianne, Frostig Program for Development of Visual Perception Kephart, Newell C., The Slow Learner in the Classroom	Walk (over, around, under, between) Crawl (over, around, under, between) Barrel Monkey bars Game: "Simon Says" Playing and working with sand and paste Color, cut and paste Finger tracing Obstacle course
away	Belgua, Frank, Handbook of Activities, Perceptual Development Card file: Learning and Playing, New York: Educational Activities Cruichshank, William M., The Teacher of Brain-Injured Children	Jumping board Jumping tube Throwing and catching a ball Bouncing ball Jumping rope Dodgeball Suspendable ball Rocking board Kickball

CONTENT	RESOURCE MATERIALS	TEACHING AIDS
4. (continued)	Frostig, Marianne, Move, Grow, and Learn Program, The Follet Co. Kephart, Newell C., The Slow Learner in the Classroom Manual of Motor-Perceptual Activities, Department of P.E., Pontiac Public Schools, Pontiac, Michigan	Baseball Bouncing ball: o knee high, w changing han bounce, run Gutter roll: wat Maze. watch bal

RESOURCE MATERIALS

Frostig, Marianne, Move, Grow, and Learn Program, The Follet Co.

Kephart, Newell C., The Slow Learner in the Classroom

Manual of Motor-Perceptual Activities, Department of P.E., Pontiac Public Schools, Pontiac, Michigan

TEACHING AIDS

Baseball

Bouncing ball: one hand, two hands; bouncing knee high, waist high, shoulder high; changing hands, fast, slow, walk and bounce, run and bounce etc

Gutter roll: watch ball roll along molding

Maze: watch ball roll on slanting lines

AREA II: VISUAL

CONTENT	RESOURCE MATERIALS	TEACHING AIDS
1. Visual motor	Belgau, Frank. *Perceptual Developmental Handbook of Activities* Cruickshank, William M., *The Teacher of Brain-Injured Children* *Developing Learning Readiness*, Webster Division, McGraw-Hill (manual and filmstrips) Frostig, Marianne, *Frostig Program for Development of Visual Perception* Getman, B. N and Elmer R. Kane, *The Physiology of Readiness* Herr, Selma, *Perceptual Communication Skills* (developing visual awareness and skills at all levels) Kephart, Newell C., *The Slow Learner in the Classroom*	Setting the table Kickball Buttoning shirt Chalkboard Tin plates of ge Controlled Reade Frostig sheets V Tracing pictures Connecting dot p Sorting things by Color-by-color pa Left-right activ Suspended ball Puzzles Cutting Continental Press Level 1-2 Watching flashing
2. Perceptual consistency	Cruickshank, William M., *The Teacher of Brain-Injured Children* Frostig, Marianne, *Frostig Program for Development of Visual Perception* Herr, Selma, *Perceptual Communication Skills* (developing visual skills) Kephart, Newell C., *The Slow Learner in the Classroom*	Concrete objects String bead patte Peg board patter Pictures of same angles and o Form Boards by Id Sorting things by Sorting things by Shape lotto Frostig sheets PC Continental Press Discriminatio Lacing cards

RESOURCE MATERIALS	TEACHING AIDS
Belgau, Frank. Perceptual Developmental Handbook of Activities Cruickshank, William M., The Teacher of Brain-Injured Children Developing Learning Readiness, Webster Division, McGraw-Hill (manual and filmstrips) Frostig, Marianne, Frostig Program for Development of Visual Perception Getman, B. N and Elmer R. Kane, The Physiology of Readiness Herr, Selma, Perceptual Communication Skills (developing visual awareness and skills at all levels) Kephart, Newell C., The Slow Learner in the Classroom	Setting the table Kickball Buttoning shirt Chalkboard Tin plates of geometric design Controlled Reader Frostig sheets VM 1-90 Tracing pictures and shapes Connecting dot pictures Sorting things by color Color-by-color pattern Left-right activities Suspended ball Puzzles Cutting Continental Press dittos, Visual Motor, Level 1-2 Watching flashing lights
Cruickshank, William M., The Teacher of Brain-Injured Children Frostig, Marianne, Frostig Program for Development of Visual Perception Herr, Selma, Perceptual Communication Skills (developing visual skills) Kephart, Newell C., The Slow Learner in the Classroom	Concrete objects of geometric forms String bead patterns Peg board patterns Pictures of same object but from different angles and of different sizes Form Boards by Ideal Sorting things by shape Sorting things by size Shape lotto Frostig sheets PC 1-70 Continental Press dittos: Visual Discrimination, Levels 1, 2, 3 Lacing cards

CONTENT	RESOURCE MATERIALS	TEACHING AIDS
3. Figure-Foreground	Developing Learning Readiness, Webster Division, McGraw-Hill, (filmstrips) Frostig, Marianne, Frostig Program for Development of Visual Perception Herr, Selma, Perceptual Communication Skills (developing visual awareness) Kephart, Newell C., The Slow Learner in the Classroom	Peabody Kit Differences and l objects, the Mazes Frostig sheets FG
4. Spatial relationships (Two or more objects in relation to self)	Developing Learning Readiness, Webster Division, McGraw-Hill, (manual and filmstrips) Frostig, Marianne, Frostig Program for Development of Visual Perception Herr, Selma, Perceptual Communication Skills (developing visual awareness) Kephart, Newell C., The Slow Learner in the Classroom	Cut-color-paste Puzzles Blocks Hopscotch Block patterns Parquetry and pa Blackboard exerci Frostig sheets S
5. Position of body in space	Belgau, Frank, Perceptual Developmental Handbook of Activities Frostig, Marianne, Frostig Program for Development of Visual Perception Developing Learning Readiness, Webster Division, McGraw-Hill, (manual) Frostig MGL (Move-Grow-Learn)	Walking board Bead patterns Left-right distin Ideal perceptual Body puzzles Completing partia Giving directions Puppets Rhythm dance step

	RESOURCE MATERIALS	TEACHING AIDS
	Developing Learning Readiness, Webster Division, McGraw-Hill, (filmstrips) Frostig, Marianne, Frostig Program for Development of Visual Perception Herr, Selma, Perceptual Communication Skills (developing visual awareness) Kephart, Newell C., The Slow Learner in the Classroom	Peabody Kit Differences and likenesses--concrete objects, then pictures Mazes Frostig sheets FG 1-69
in	Developing Learning Readiness, Webster Division, McGraw-Hill, (manual and filmstrips) Frostig, Marianne, Frostig Program for Development of Visual Perception Herr, Selma, Perceptual Communication Skills (developing visual awareness) Kephart, Newell C., The Slow Learner in the Classroom	Cut-color-paste Puzzles Blocks Hopscotch Block patterns Parquetry and parquetry patterns Blackboard exercises Frostig sheets SR 1-85
pace	Belgau, Frank, Perceptual Developmental Handbook of Activities Frostig, Marianne, Frostig Program for Development of Visual Perception Developing Learning Readiness, Webster Division, McGraw-Hill, (manual) Frostig MGL (Move-Grow-Learn)	Walking board Bead patterns Left-right distinction exercises Ideal perceptual development cards Body puzzles Completing partially drawn faces or bodies Giving directions in relation to body Puppets Rhythm dance steps (records)

CONTENT	RESOURCE MATERIALS	TEACHING AID
5. (Continued)	Kephart, Newell C., *The Slow Learner in the Classroom* .	Record: *And th* Educational
6. Visual Sequences	Desi materials Motor response R - Level 5 Voice Response R - Level 5	Multivariant Se Multi-Sequencin Lite Brite Blocks Parquetry Visual Sequenti
7. Visual Association	Desi materials Motor response R - Level 5 Voice Response R - Level 5	Association Pic

211

RESOURCE MATERIALS	TEACHING AIDS
Kephart, Newell C., The Slow Learner in the Classroom	Record: And the Beat Goes on, New York: Educational Activities
Desi materials Motor response R - Level 5 Voice Response R - Level 5	Multivariant Sequencing Patterns Multi-Sequencing beads (DLM) Lite Brite Blocks Parquetry Visual Sequential Memory Cards (DLM)
Desi materials Motor response R - Level 5 Voice Response R - Level 5	Association Picture Cards (DLM)

AREA III: AUDITORY

CONTENT	RESOURCE MATERIALS	TEACHING AIDS
1. Interpreting moods	Herr, Selma, Perceptual Communication Skills (auditory awareness - all levels)	Records Tapes
Hearing and distinguishing sounds	Peabody Kit	Reading poetry t Records, music Records stories
Contrasting sounds	Records: Sounds of School; Sounds of Home; Sounds of the Farm, Scott, Foresman	Reading stories Reading entire b Going for walks Piano
	SRA Reading Lab, Listening Skill Builders	Tape recorder Nursery rhymes
	SRA Listening Skills Program	
	Goldman-Lynch	Sound Order Sense
2. Discrimination and identification	Arena, John I., Teaching Educationally Handicapped Children	Peabody Kit Record player Phonics records
Sounds of things	Herr, Selma, Perceptual Communications Skills (auditory awareness program)	Tape recorder Pencils Desks
Phonetic sounds	Record: Meet Mr. Mix-up, New York: Educational Activities	Drums and drumst Rhythm band inst
	Record: Who Said It?, New York: Educational Activities	
	Sight, Sound, Symbol Kit, The Follet Co.	
	Goldman-Lynch	Sound Order Sens
3. Instant recall	Herr, Selma, Perceptual Communication Skills, Auditory Skills Program	Record player Tape recorder
Vocabulary		Teacher-made tes
Information	Record: Building Vocabulary, New York: Educational Activities Goldman-Lynch	Prepared tests Teacher clapping it

ORY

	RESOURCE MATERIALS	TEACHING AIDS
sh-	Herr, Selma, Perceptual Communication Skills (auditory awareness - all levels) Peabody Kit Records: Sounds of School; Sounds of Home; Sounds of the Farm, Scott, Foresman SRA Reading Lab, Listening Skill Builders SRA Listening Skills Program	Records Tapes Reading poetry to children Records: music Records: stories Reading stories to children Reading entire books to children Going for walks outdoors Piano Tape recorder Nursery rhymes
	Goldman-Lynch	Sound Order Sense
enti-	Arena, John I., Teaching Educationally Handicapped Children Herr, Selma, Perceptual Communications Skills (auditory awareness program) Record: Meet Mr. Mix-up, New York: Educational Activities Record: Who Said It?, New York: Educational Activities Sight, Sound, Symbol Kit, The Follet Co.	Peabody Kit Record player Phonics records Tape recorder Pencils Desks Drums and drumsticks Rhythm band instruments
	Goldman-Lynch	Sound Order Sense
	Herr, Selma, Perceptual Communication Skills, Auditory Skills Program Record: Building Vocabulary, New York: Educational Activities Goldman-Lynch	Record player Tape recorder Teacher-made tests Prepared tests Teacher clapping a pattern, pupil copying it

CONTENT	RESOURCE MATERIALS	TEACHING AID
3. (Continued)	*SRA Listening Skills Program* *SRA Reading Lab* Listening Skills Part	
4. Following directions	Herr, Selma, *Perceptual Communications Skills* (auditory awareness program) *Listening Games*, K, First, (Sp. E.), New York: Educational Activities *SRA Listening Skills Program* Tape: *Basic Skills to Music*, New York: Educational Activities Book: Educational Therapy Materials	Tape recorder Teacher made tes Giving direction of written Peabody Kit Developmental Le
5. Sequencing Information Patterns (rhythms)	Herr, Selma, *Perceptual Communications Skills* (auditory awareness program) Kephart, Newell C., *The Slow Learner in the Classroom* *SRA Listening Skills Program* *SRA Reading Lab*, Listening Skills Part Goldman-Lynch	Tape recorder Teacher-read sto Drums Piano Balls Pencils Xylophone
6. Creative listening	Herr, Selma, *Perceptual Communications Skills* (auditory awareness program) Peabody Kit Slepian and Sudler, *Listen-Hear Books* *SRA Listening Skill Builders* Goldman-Lynch	Tape recorder Walkie-talkie Mood music Peabody Kit
7. Auditory sequencing	Desi materials Motor response - Level R - 5 Voice response - Level R - 5	

RESOURCE MATERIALS	TEACHING AIDS
SRA Listening Skills Program	
SRA Reading Lab Listening Skills Part	
Herr Selma, Perceptual Communications Skills (auditory awareness program)	Tape recorder Teacher made tests Giving directions orally or on tape instead of written
Listening Games, K, First, (Sp. E.), New York: Educational Activities	Peabody Kit Developmental Learning Materials tapes
SRA Listening Skills Program	
Tape: Basic Skills to Music, New York: Educational Activities Book: Educational Therapy Materials	
Herr, Selma, Perceptual Communications Skills (auditory awareness program)	Tape recorder Teacher-read stories or directions
Kephart, Newell C., The Slow Learner in the Classroom	Drums
SRA Listening Skills Program	Piano Balls Pencils
SRA Reading Lab, Listening Skills Part Goldman-Lynch	Xylophone
Herr, Selma, Perceptual Communications Skills (auditory awareness program)	Tape recorder Walkie-talkie Mood music Peabody Kit
Peabody Kit Slepian and Sudler, Listen-Hear Books	
SRA Listening Skill Builders Goldman-Lynch	
Desi materials Motor response - Level R - 5 Voice response - Level R - 5	

CONTENT	RESOURCE MATERIALS	TEACHING AI
8. Auditory Association	Desi materials Motor response R - Level 5 Voice response R - Level 5	

RESOURCE MATERIALS	TEACHING AIDS
Desi materials Motor response R - Level 5 Voice response R - Level 5	

218

AREA IV: SENSORY AWARENESS

CONTENT	RESOURCE MATERIALS	TEACHING AID
1. Touch	Developing Learning Readiness,	Glasses
	Webster Division, McGraw-Hill (manual)	Fabrics (cotton,
Textures:		Cotton balls
Rough	Concepts in Science, Harcourt, Brace*	Pine cones
Smooth		Balls (rubber, c
Soft	Kephart, Newell C., The Slow Learner	Blocks
Hard	in the Classroom	Sponges
Fuzzy		Sandpaper
Sticky	Science 1 & 2, Laidlaw Brothers *	Lollipops
Prickly (sharp)		Wesson oil
Wet	Science Curriculum--Kindergarten *	Rocks
Dry		Ice
Oily	Science Curriculum--Primary I *	Clay
Spongy		Play-Doh
Hot	Science Curriculum--Primary II *	
Cold		
Coarse	Triple A Science Program	
Shapes:		Blocks
Circles		Tin plates
Squares		Cardboard shapes
Cones		Developmental Le
Ovals		Pencils
Diamonds		Rulers
Triangles		Stamp pad and in
Hearts		shapes
Stars		Alphabet templat
Cross		
Long		
Short		
Big		
Little		

RESOURCE MATERIALS

Developing Learning Readiness, Webster Division, McGraw-Hill (manual)

Concepts in Science, Harcourt, Brace*

Kephart, Newell C., The Slow Learner in the Classroom

Science 1 & 2, Laidlaw Brothers *

Science Curriculum--Kindergarten *

Science Curriculum--Primary I *

Science Curriculum--Primary II *

Triple A Science Program

TEACHING AIDS

Glasses
Fabrics (cotton, silk, wool)
Cotton balls
Pine cones
Balls (rubber, cloth)
Blocks
Sponges
Sandpaper
Lollipops
Wesson oil
Rocks
Ice
Clay
Play-Doh

Blocks
Tin plates
Cardboard shapes
Developmental Learning toys
Pencils
Rulers
Stamp pad and ink--stamps with various shapes
Alphabet template

CONTENT	RESOURCE MATERIALS	TEACHING AID
2. Odors: Artificial Natural	Concepts of Science, Harcourt, Brace * Science 1 & 2, Laidlaw Brothers * Science Curriculum--Kindergarten * Science Curriculum--Primary I * Science Curriculum--Primary II * Triple A Science Program	Ladies' cologne Aftershave lotio Soaps (cake) Toothpaste Deodorant Burning leaves Burning material Gas Game: "Smell and mentioned) Fresh fruits Many vegetables Spices Peanut butter Onions Garlic
3. Taste: Sweet Sour Salty Bitter	Concepts of Science, Harcourt, Brace * Science 1 & 2, Laidlaw Brothers * Science Curriculum--Kindergarten * Science Curriculum--Primary I * Science Curriculum--Primary II * Triple A Science Program	White sugar Brown sugar Candy Cookie Lime Lemon Vinegar Salt Crackers Pretzels Vanilla extract Unsweetened choc Grapefruit Pickles (sweet, Nuts Flour Cornmeal Cream of tartar Coffee Starch Soap powder

RESOURCE MATERIALS	TEACHING AIDS
Concepts of Science, Harcourt, Brace * Science 1 & 2, Laidlaw Brothers * Science Curriculum--Kindergarten * Science Curriculum--Primary I * Science Curriculum--Primary II * Triple A Science Program	Ladies' cologne Aftershave lotion Soaps (cake) Toothpaste Deodorant Burning leaves Burning material (such as rubber) Gas Game: "Smell and Guess" (using items mentioned) Fresh fruits Many vegetables Spices Peanut butter Onions Garlic
Concepts of Science, Harcourt, Brace * Science 1 & 2, Laidlaw Brothers * Science Curriculum--Kindergarten * Science Curriculum--Primary I * Science Curriculum--Primary II * Triple A Science Program	White sugar Brown sugar Candy Cookie Lime Lemon Vinegar Salt Crackers Pretzels Vanilla extract Unsweetened chocolate squares or powder Grapefruit Pickles (sweet, sour, dill) Nuts Flour Cornmeal Cream of tartar Coffee Starch Soap powder

RESOURCE SERVICES
KLEIN I. S. D.

221

222